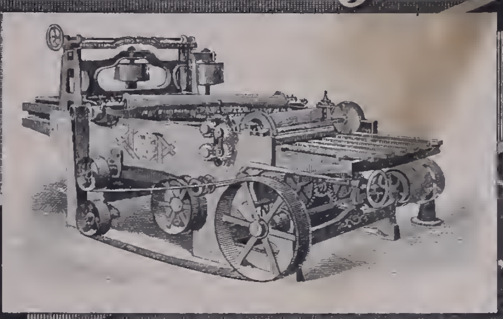
ROWLEY & HERMANCE,

BUILDERS of WOOD WORKING MACHINERY.



FINISHES 500 DOORS IN 10 HOURS.

DIAGONAL DOOR PLANER & POLISHER.

Williamsport, Pa. U.S.A.

OFFICE WAREROOMS & WORKS,

Church St. from Basin to Vanderbelt St.

GIES & CO. LITHOGRAPHERS & PRINTERS BUFFALO N.Y.

WILL YOU BE KIND ENOUGH

To acknowledge receipt of this Catalogue by postal card or letter? Please oblige us in this. If in want of any machine herein illustrated, please mention it and we will quote you special prices.

Very truly yours,

ROWLEY & HERMANCE.

Special Notice!

WHICH ALL OUR PATRONS SHOULD READ.

In ordering extras, repairs and supplies, or changes in machines being built, we wish to impress upon the minds of our customers the necessity of furnishing us with sufficient data to enable us to fill their orders intelligently and correctly, thereby avoiding mistakes, a most fruitful source of annoyance, expense and delay.

Many seem to think that we should know by intuition, or by some mysterious process of mind reading, just what they want.

Orders thoughtlessly or carelessly made, are often received with the injunction to hurry the goods forward. To avoid delay, we must *guess* what is wanted, and we may guess wrong; then comes the inevitable express charges, and consequent vexations at both ends of the line.

In ordering gears, give number of teeth, diameter, width of face, size of hole and length of hub. If a pulley, give diameter, face and hole; and if it is to run with another pulley, (tight or loose,) give projection of hub beyond the rim. In ordering mortise chisels, give the taper, or send an old shank. *Moulding bits should have a pattern, with position and size of slots, when it is possible to send them,* as the spring of the bit depends upon the diameter of the head. When ordering blanks for moulding bits, always give the length, as we do not know the thickness of moulding you wish to make. Use the same care in ordering everything.

A little pencil sketch often conveys more meaning than a page of written instructions. Many of our machines are sold through agents, and only the agent's name is known to us in the transaction, hence the necessity of care in ordering. *We must know when the machine was made.* When sending *anything* to us, put your name and address on each package.

If in want of any kind of machinery for working wood, write us for prices before placing your order. By so doing, you will save money and get the very best the market affords.

ROWLEY & HERMANCE, Williamsport, Pa., U. S. A.

ROWLEY & HERMANCE'S

CLASSIFIED CATALOGUE

—OF—

Improved Wood-Working

MACHINERY.

OFFICE, WAREROOMS AND WORKS:

Church, Basin and Penn Streets,

WILLIAMSPORT, PA., U. S. A.

SEVENTH EDITION: 1890.

HELLER BROTHERS,
Printers, Engravers and Lithographers,
WILLIAMSPORT, PENNA.

INTRODUCTORY.

IN presenting you with this, the Seventh Edition of our Classified Catalogue of Improved Wood-Working Machinery, we take occasion to thank our many customers and friends for their generous patronage in past years.

We invite your careful inspection of the many new and IMPROVED machines that we have invented and perfected since our last catalogue was issued, which can be found on pages 6, 7, 12, 13, 16, 18, 19, 29, 33, 34, 36, 37, 51, 53, 60, 62, 67, 74, 76, 77, 84, all of which are for the first time now illustrated.

We are constantly adding to our already large line of LABOR-SAVING machinery, determined that we will MAINTAIN the reputation that we have secured of building the greatest LABOR-SAVING machinery yet introduced.

The superiority of our Patent Adjustable "Common Sense" Journal Box, [see page 4,] is well known, and is steadily gaining in popular favor in spite of the persistent misrepresentation of some of our competitors. This continued misrepresentation is due alone to the fact that we are the exclusive owners of this patent, and that this Journal Box can only be found on machinery of our make.

Our workshops are nearly DOUBLE the capacity of any in the same line of business in the State; our tools are first-class throughout, and our workmen are skilled in their various departments, which, together with our practical experience in building and operating wood-working machinery, enables us to understand the wants of our customers and to produce FIRST-CLASS LABOR-SAVING MACHINERY suited to their work, at reasonable prices.

Owing to the world-wide reputation of our machinery, our home and foreign trade has constantly increased, obliging us to enlarge our works from year to year.

Every machine is belted up and carefully tested before shipping.

Correspondence should be carefully addressed to our firm name, Corner CHURCH and BASIN Streets.

Again thanking you for past favors, and asking a continuance of your patronage, we are

Very truly yours,

ROWLEY & HERMANCE.

E. A. ROWLEY.
A. D. HERMANCE.

WILLIAMSPORT, PA., U. S. A., January 1st, 1890.

ROWLEY & HERMANCE WILLIAMSPORT, PA.

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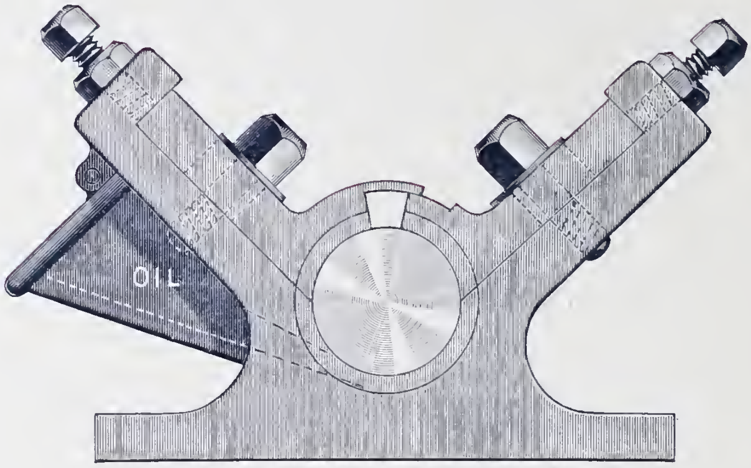
Our Patent Adjustable "Common Sense" Journal Box.



Patented May 9, 1871; Sept. 29, 1879. Additional patent pending.

AGAIN we ask attention to this new feature in journal boxes. After several years' experience with this box we heartily recommend its use.

Ever since the introduction of machinery, the ordinary cap-box has been used. All operators well know that it is almost impossible to run a cap-box without heating. As the box wears away, the journal trembles, and to tighten it requires that the four or more bolts be taken out, the liners reduced in thickness, the caps replaced and bolted down. Frequently the boxes must be scraped; even then it is impossible to take out the side motion without re-babbitting the box. This is the cause of much vexatious delay and loss of valuable time.

By the use of our New Patent Journal Boxes, made in three parts, (as shown in above cut,) the caps are tightened by simply loosening the bolts and setting down the adjusting bolt in end of cap, an operation requiring less than quarter of the time consumed by the old mode.

The caps being adjustable to the wearing of the box, the journal can be kept central and tight until the box is worn out, thus preventing all heating of the box and tremble or jar of the shaft, a very important point where smooth work is required.

A practical man will at once see the advantage of purchasing machinery having this box, instead of the old style caps.

We are the sole and exclusive owners of the above box, applied to wood-working machinery, and all infringers will be prosecuted to the full extent of the law.

Your Journal Box, used on these machines, "gets away" with any box I ever saw.
D. M. Sharpnack, Petroleum, W. Va.

The Three-Part Journal Box is the best and most convenient now extant. I would give one thousand dollars if every journal box in our factory was of that pattern.
H. W. Sindorf,
Bagdad Sash Factory Co., Bagdad, Fla.

The Three-Part Box is ahead; and any person who cannot keep a journal in line with it ought to quit the biz.
J. A. Latta,
Engineer in charge Water Works,
Fort Fetterman, Wyoming Ter.

We are highly pleased with the Patent Journal Box. You are welcome to use our name for reference.
Daly & Co., Ashland, Oregon.

The Three-Part Journal Box is the best we ever run.
Pfarr & Genheimer, Pomeroy, Ohio.

As for the Three-Part Journal Box, it is the best box we have ever seen.
Jno. Mees & Sons,
Mason City, West Virginia.

The Adjustable Journal is the best journal I have ever run.
H. Francies, Pepin, Wis.

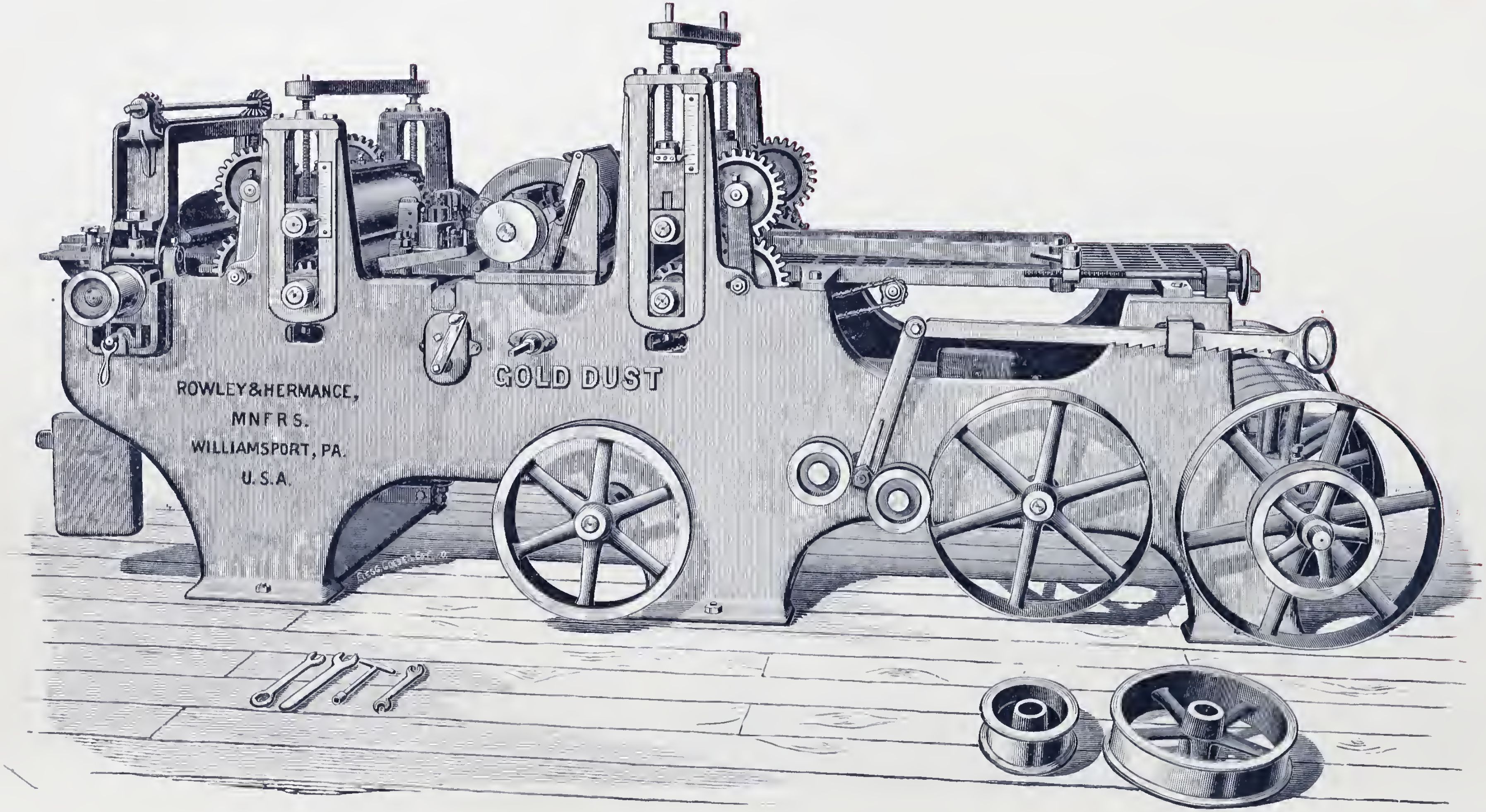
As to the Three-Part Journal Box, they are splendid.
J. Cook & Son, Oglethrope, Ga.

The Three-Part Journal is the best journal we have ever run.
M. E. Howe & Co.,
Rowlesburg, W. Va.

I presume any further endorsement of your Three-Part Boxes is unnecessary; but it is no more than just to say that I do not see how you can any more nearly reach perfection in that line.
J. E. Ingham, Supt.,
Corlies, Chapman & Drake,
St. Paul, Minn.

SAW AND PLANING MILL DEPARTMENT.

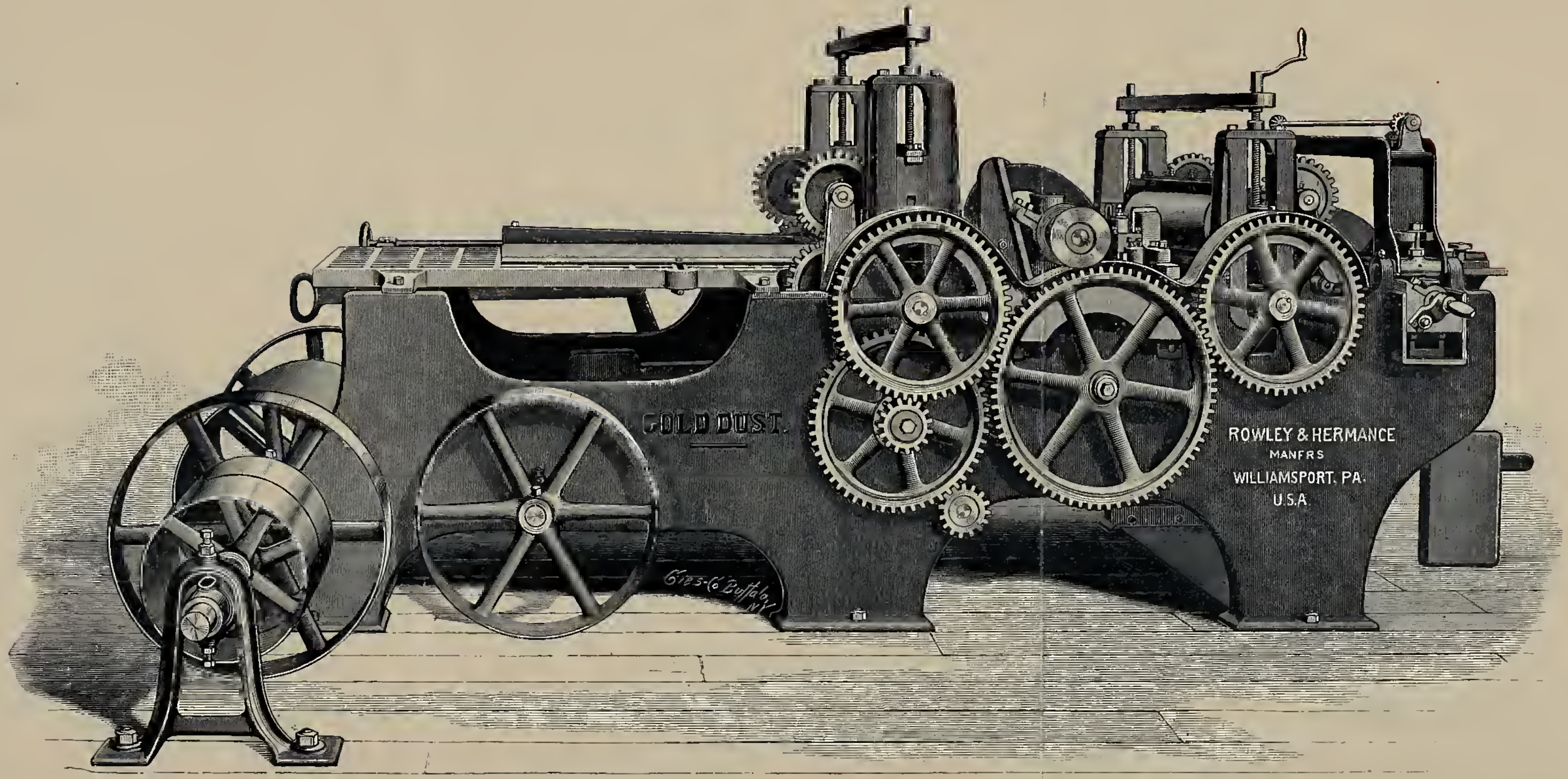
GOLD DUST



RAPID FEED DOUBLE PLANER AND MATCHER.--PLAIN SIDE.

SEE DESCRIPTION ON OPPOSITE PAGE.

GOLD DUST PLANER AND MATCHER.--GEARED SIDE.


GOLD DUST
ROWLEY & HERMANCE
MANFRS
WILLIAMSPORT, PA.
U.S.A.
Gies-Co Buffalo N.Y.

THE cut on opposite page and above cut represents our new and improved Planer and Matcher, to which we have given special care and attention.

The frame is designed with six legs, so disposed as to support all working parts in the most rigid manner, thus avoiding all trembling and vibration, and producing uniformly smooth work under all conditions, and has the following new and important improvements:

The matcher headstocks are mounted on a turned bar of large diameter, and provided with means of taking up all wear, and may be moved laterally so as to admit of surfacing the full rated width of machine without dropping headstocks or removing heads. One or both heads may be moved at the same time, in the same direction; thus, in running flooring, &c., when the knives on top cylinder head become dull, the side heads may be moved to a new place by simply turning one screw, which maintains the same relation between them, and the operation may be repeated. The long guide on right, or groove side of machine, moves its entire length with the heads, and needs no attention when adjusting for different widths of lumber.

The machine has four feed rolls, 6½ inches in diameter, and is provided with a broken roll for running lumber of unequal thickness. The rolls are driven by a system of gearing which is very strong and positive.

Both upper and under cylinder heads are 6½ inches in diameter, slotted on four sides, made of solid steel forgings. The boxes carrying top head, which are long and lined with strictly genuine Babbitt metal, are connected by a yoke running underneath the table, which admits of much more space about the head than the usual construction. The pressure bars are both adjustable to and from the knives, and may be set to suit plain knives, or any kind of moulding knives, and may be removed entirely in one minute.

The under cutter head is mounted in a heavy, rigid headstock, and is raised and lowered by means of inclined planes from front or working side of machine, which always keep the head in line with the table. Either end of the head may be raised or lowered, however, by turning one bolt. The headstock is firmly secured by two screws, both easy of access. The front table may be moved away from the head, delivery table swung downward and pressure bar over knives swung upward from either end, thus leaving the knives perfectly free.

The side spindles are of steel of large diameter, and may be raised or lowered at will of operator, the lower ends running on anti-friction steps, and provided with large space for oil. The matcher heads, which are three-wing, are fitted with adjustable chip-breakers and pressure shoes to hold lumber in its proper place, and the piece being worked is forced against the long guide by means of a steel spring, adjustable by a hand wheel convenient to operator.

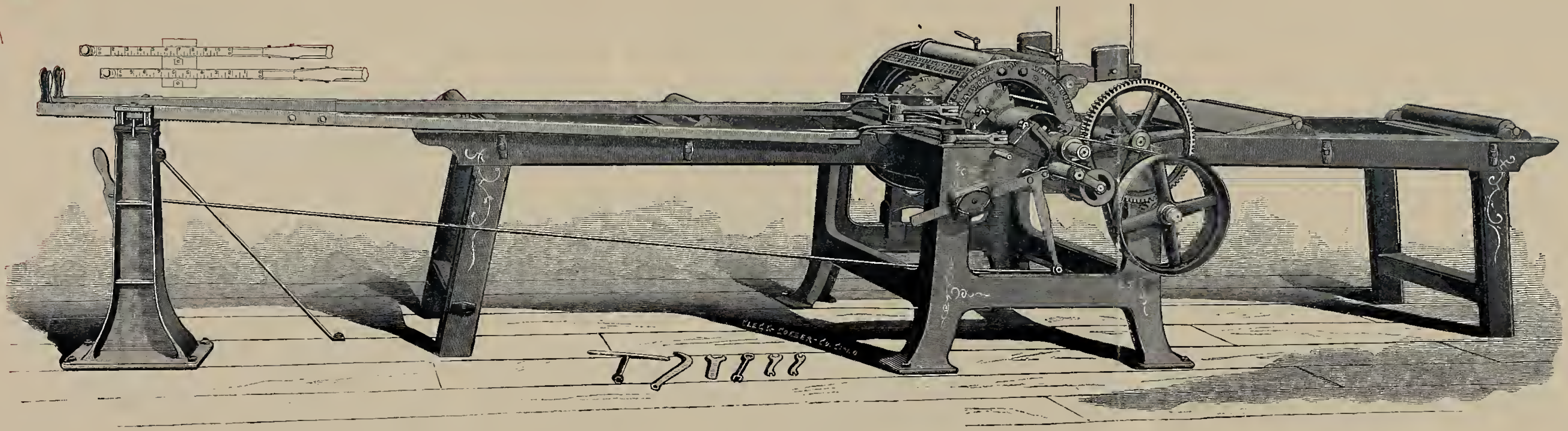
The machine is constructed as simple as is consistent with good results, all complicated devices which are liable to get out of order and give trouble being avoided. Both countershafts are mounted in swivel boxes, which always align themselves to the shafts.

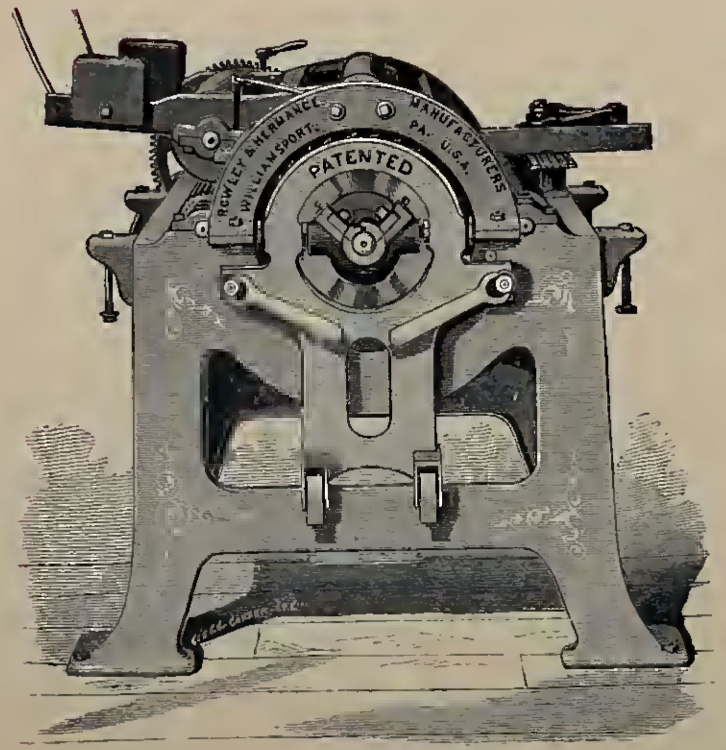
There are three rates of feed: 50, 75 and 100 lineal feet per minute. Tight and loose pulleys on countershaft are 14 x 7, and should make 900 revolutions per minute.

We furnish with each machine four knives on top cutter head, two knives for bottom head, one set of matcher bits and four wrenches; also one set of jointing knives and two sets of beading knives.

Each machine is thoroughly tested on actual work before shipment, and is guaranteed as represented. Weight, 7500 pounds.

THE NEW KING No. 2 POWER FEED GANG RIPPING MACHINE.





THE heaviest, fastest feeding, most durable, most convenient and simplest machine of its kind now in market. It has two rates of feed, which, by means of a binder, can be started or stopped at will from the point where the board is fed to machine, and will rip stock boards at the rate of 80,000 feet per day of 10 hours. We guarantee this statement. *New Patterns,—entirely new design.* An experience of fifteen years in building Gang Ripping Machines warrants us in asking your attention to the many *very important* and distinctive features in this machine, not before applied to machines of its class.

The Frame is very heavy, being cast in one piece; will not spring or tremble, while the light machines heretofore made are all open to this objection.

The Arbor is of steel, running in our patent Three-Part Journal Boxes, which are long and self-oiling. On this arbor is mounted one stationary and one adjustable saw, which, together with the movable gauge, are under perfect control of the operator, who stands 16 feet from the saws, with the Setting Levers convenient to his hand. One of these shifting levers controls the movable gauge and the other the adjustable saw. Both levers have indexed plates graduated to one-fourth inch. When the handle of the set lever is grasped, the ratchet bar is raised from the catch and the lever is free to move *without raising it from the stand.* This is an important improvement.

When one board is started into the machine, another is selected and the edge that shall run to the guide is determined, *continuous ripping* being the result. Boards of different widths or all of one width can be ripped at the option of the operator.

By means of our Patent Shifter Fork (which is made in two parts) all lost motion can be taken out of set works, thus ensuring ripping to exact widths.

The Floor Stand being braced and the levers rigid, the saw and guide are held firmly in place. The levers on this machine will not spring while in use; this is *a feature not attained by any other machine made.*

Our device for REMOVING THE SAWS (as shown in end view) is the *most perfect and convenient ever produced.* It is only necessary to loosen two nuts, which have stationary wrenches, the bolts slipping out of the slots allow the end box to swing away from the frame, when the saws can be removed and replaced by sharp ones *within two minutes.* The end box is then swung into place without affecting the alignment of the arbor, and is held rigidly in position.

This machine is now provided with a pressure lever (not shown in cut), which forces the board to the guide. This lever should be swung back away from the board when using the machine as an edger.

We *guarantee* this machine to saw all lumber uniform in width from end to end.

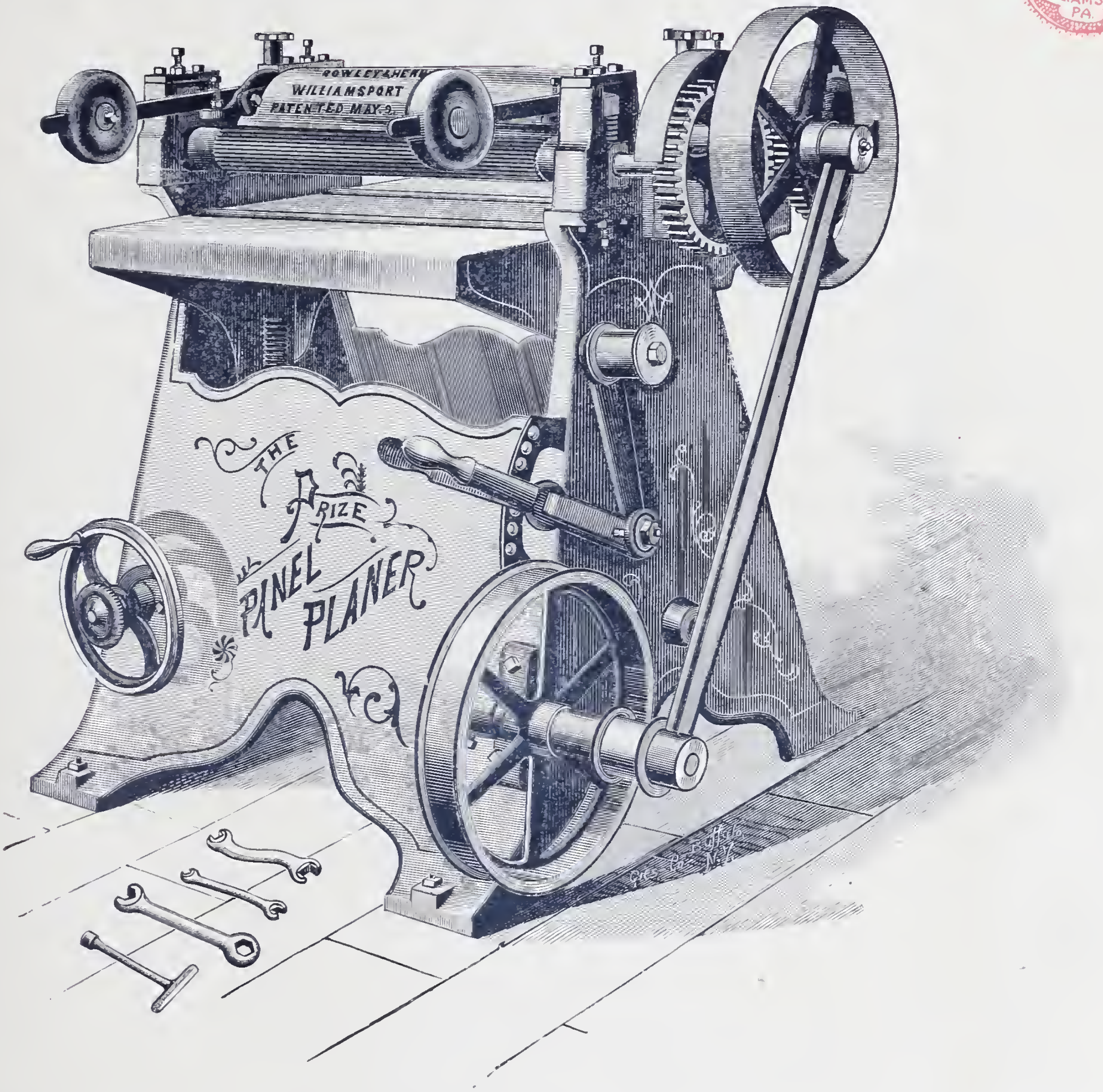
Driving Pulley 8 x 8, and should run 2500 revolutions. No. 2 saws 25 inches wide and 4 inches thick. Diameter of saws, 14 inches.

Directions for Setting up and Starting.

Set the machine and wooden frames *level.* Attach the wooden frames as marked. Set the stationary saw 9 1-16 inches from the gauge when the gauge is back as far as it will go. Attach the levers and set the stand so the catch will come in the first notch. Then set the movable saw 2⅛ inches from stationary saw. The machine is then ready for work. Run a board through the machine before putting on the saws, to see that the feed is all right, and to avoid accident or injury to the saws in case the board should not feed straight. Always take saws off of arbor to file, but never off of collar. With our new device, the saws can be changed in two minutes. The patent finger that moves the movable saw is made in two pieces, so that when it gets worn it can be taken apart and slack motion can be taken up with paper liners.

If above directions are carefully complied with we guarantee the machine to give satisfaction.

PRIZE PONY OR PANEL PLANER.



We here represent a strongly built, well finished small planer for general use in door shops, box and furniture manufactories, &c, For planing door panels and cigar box stuff it is equal to any in the market.

In placing this machine upon the market, we claim for it the following advantages:

1st. It has our patent "Common Sense" 3- part journal box.

2d. The frame is cast in one piece, making it very rigid.

3d. The design of the pyramid-shaped frame, base being wide, insures great strength.

4th. The two pressure bars, one in front and one in rear of the head, the front being hinged and weighted, is self-adjusting for different thicknesses of stuff; both bars are placed close to the head to prevent clipping or tearing out.

5th. The forged steel head, very small in diameter, makes it perfectly safe to run at a high rate of speed, which is very essential in planing brash or cross-grained lumber.

6th. The steel scraper attached to the delivering roll, which prevents it from gumming and marking the lumber.

7th. The shaving guard, arranged to prevent shavings from getting beneath the smooth rolls and imprinting the work—an important point in the purchase of a smoothing planer.

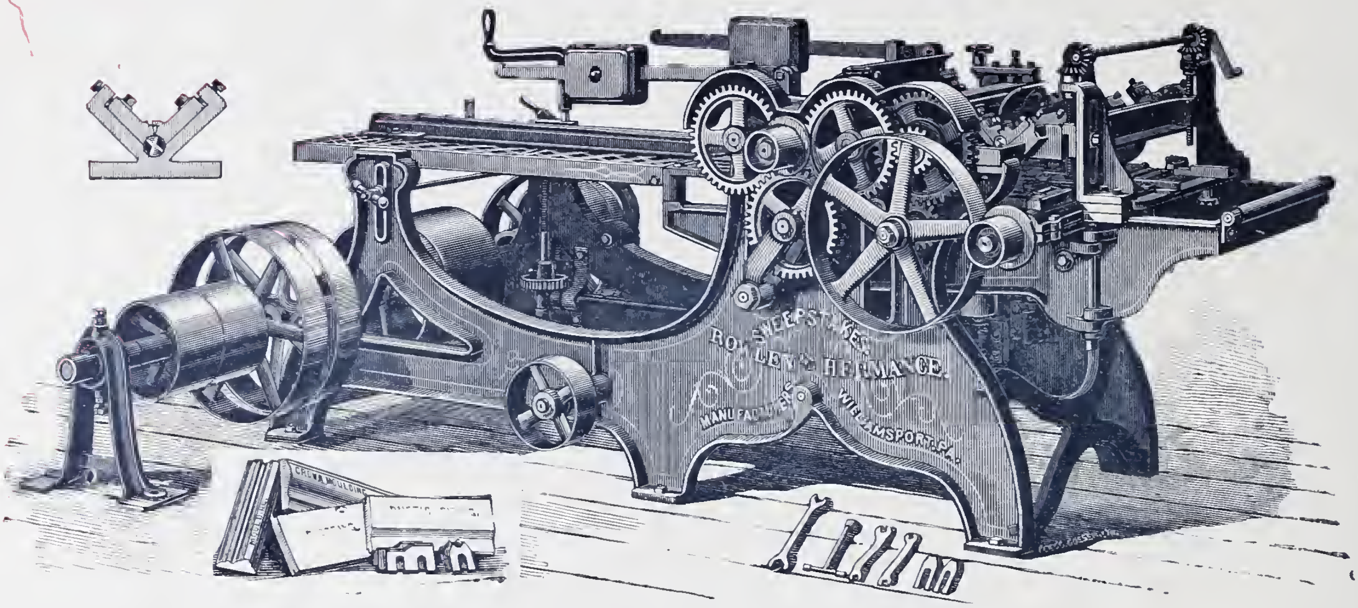
8th. That it is the heaviest Pony or Panel Planer in the market for the same amount of money.

It will plane long or short stuff, even as short as four inches, without clipping the ends, 18 or 24 inches wide, and from 1-16 to 6 inches thick. It has two geared feed rolls, making a powerful feed of 22 feet per minute. We guarantee each machine, and have so much confidence in it that we will place one on trial with any responsible party for thirty days. If not satisfactory, it may be held subject to our order.

Pulley on cylinder, 4 in. diameter by 5 in. face, and should make from 4,000 to 5,000 revolutions per minute.

Tight and and loose pulleys on countershaft, 10 x 6, and should run 900 revolutions.

The Sweepstakes Double Surfacer, Matcher and Moulder, Improved.



PATENTED.

THE Sweepstakes Planer, Matcher and Moulder has proved to be very popular, as it is a first-class, well made machine, sold at a low price. The trade demanding an equally well built, strong and durable Surfacer, Matcher and Moulder for a small amount of money, we have been induced to offer to our customers the above machine. It has the following advantages over other machines:

1st. Top cylinder is solid forged steel, and is driven with belts at both ends.

2nd. The front rolls are weighted. It has four geared feed rolls 4½ in. diameter, giving it a powerful feed.

3rd. The links for expansion gearing are made of malleable iron and bushed with brass, and cannot be worn out or broken.

4th. The matcher spindles drop out of the way for surfacing by loosening one bolt.

5th. It has our patent 3-Part "Common Sense" Journal Box, which cannot be equaled for durability and smooth work.

6th. Both driving and expansion gears are arranged so as to distribute the wear on the gears evenly.

7th. It has an extra or moulding arbor. This arbor is placed back of the matcher heads, and has slotted steel moulding head. On this head all extra shapes of knives are placed, such as novelty or rustic siding, moulding of all kinds, beading, rabbeting, &c., &c. These knives can be much more quickly and accurately adjusted on this head than if placed on a four-sided main cylinder, surrounded as it always is by feed rolls, pressure bars and other complications, and where bits cannot be seen in contact with the work. Any practical mechanic will understand this at once.

8th. We will guarantee that there is not a machine in the market at a list price of six hundred dollars that is equal to our Sweepstakes.

9th. Its simplicity: It is especially well liked by parties unaccustomed to running machinery of this class, as it is simple and easily managed. It will work yellow pine, hard or soft wood, doing excellent work.

10th. It is popular, and gives the best of satisfaction, as the sales of over 1300 of these machines will attest,

For further description see opposite page.

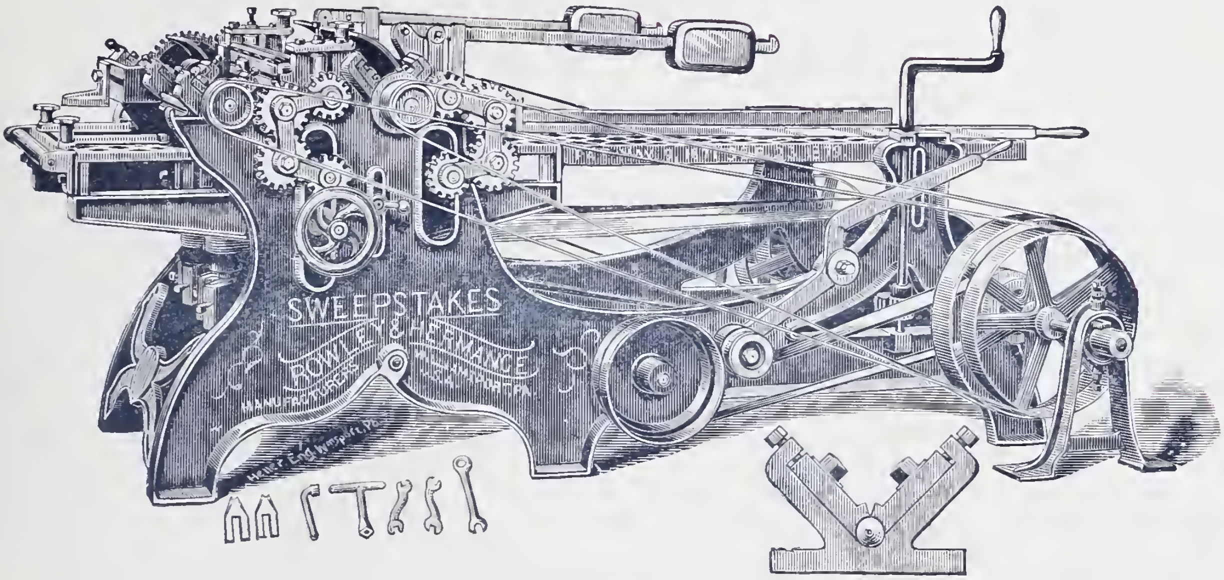
Originally we did not intend either this or the single Planer and Matcher as a moulding machine, but our customers almost invariably use it for making mouldings from 2½ to 5 inches wide with good results, as it does very smooth work.

We build only one size of this machine. The top head planes 24 inches wide and the bottom head 20 inches wide. The side heads match 12½ inches wide. It has a heavy countershaft, with tight and loose pulleys 10 in. diameter by 6 in. face, and should run 900 revolutions per minute.

Weight, 3,500 lbs. Boxing, extra at actual cost.

Hoyt's best short-lap belting furnished for this machine complete when desired, (except belt from tight and loose pulleys to line shaft,) at $28.50.

Sweepstakes Planer, Matcher and Moulder, Improved.



IT is a very heavy machine, and has the following very important improvements, viz: It is a new design, has solid forged steel head and steel matcher spindles, all running in the patent journal box, which is made in three parts, (see cut,) so that the journal can be kept central and tight until the box is worn out, thus preventing all tremble and jar of the shaft, which is very important where smooth work is required. It can be very quickly changed to a surfacer only, simply by loosening two nuts, removing the heads, and the spindles will swing below the surface of the table. They can be swung back into position, ready for work, without measuring or changing. It has four 4½ inch feed rolls, connected with expansion gear, making a very powerful feed. The feed works consist of cone feed pulleys, started or stopped with a belt tightener, and has two rates of feed, 32 ft. and 45 lineal ft. per minute. There are two pressure bars, one in front and one in rear of surfacing head. It is also provided with chip breakers. The feed rolls are held down with levers bearing heavy weights, which can be adjusted to light or heavy work. The table is long, making room for a long gauge, which is indispensable on a good flooring machine. There is also an extra arbor passing across the width of the machine, in rear of matcher heads, on which there is a slotted steel head. On this head different shapes of knives can be placed for making rustic siding, beaded ceiling, mouldings, &c. Mouldings from 2½ to 5 inches wide can be made on this machine. The matcher heads are made of cast steel, run on heavy steel spindles, and are furnished with patent straight, solid milled matcher bits. There are over 1,300 of these machines in use, all giving the best of satisfaction. Our idea in building this machine was to furnish a strong, durable, well made and in fact the best Planer and Matcher for the price in the market. How well we have attained that end the above amount of sales will show. We have from time to time improved it as occasion demanded. We originally built this machine with the top head belted at one end only. We now build it with top cylinder arranged for belts at both ends, and have added to original price only the actual cost of this improvement.

We furnish with each machine one set (2) straight knives for top cylinder, one set (4) tongue and groove cutters for matcher heads, one set (2) rustic siding knives, and one set (2) beading knives for slotted head on extra arbor; also 5 wrenches.

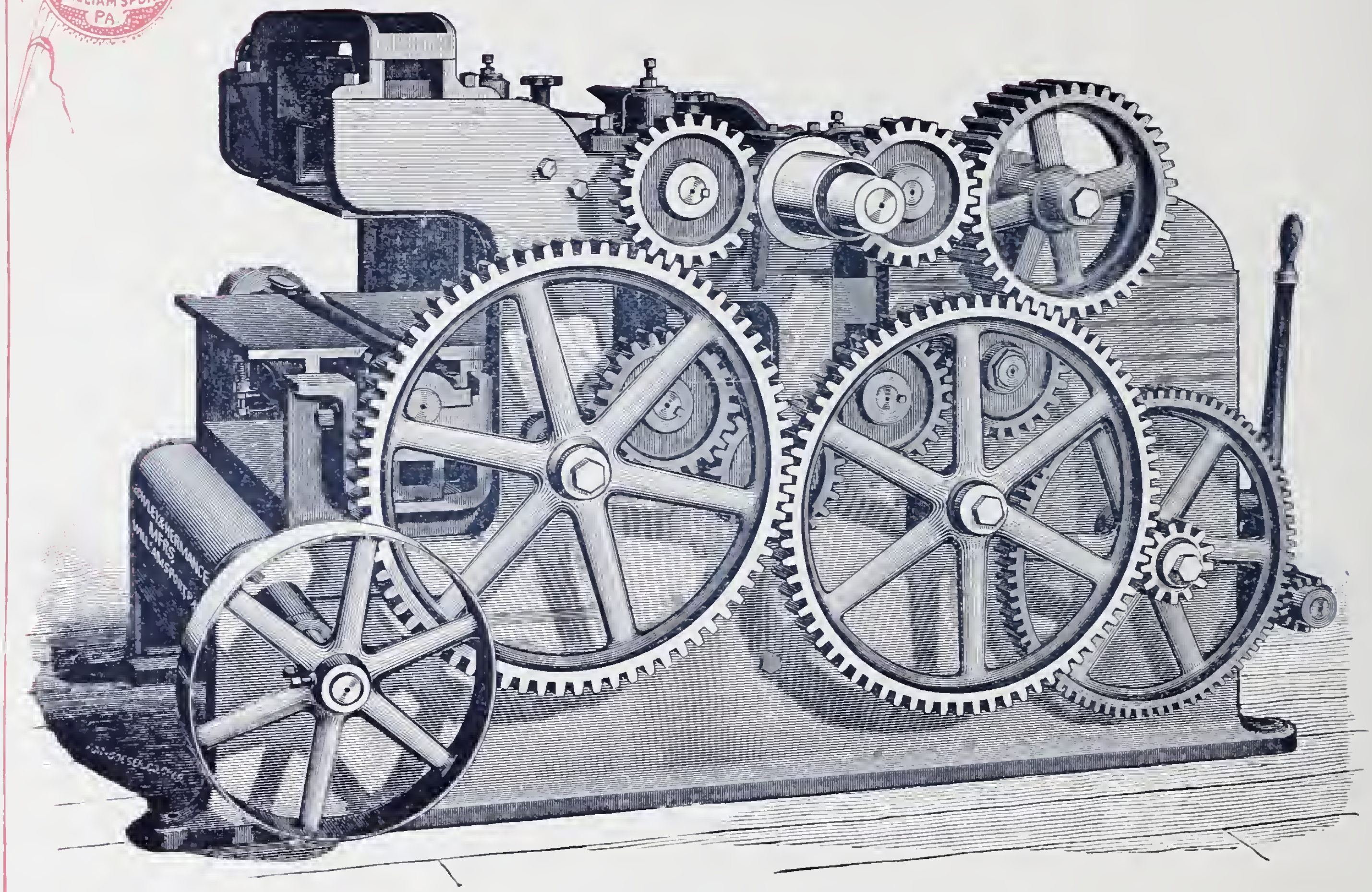
Hoyt's best short-lap belting furnished for machine complete when desired, (except belt from tight and loose pulleys to line shaft,) at $26.50, net cash.

It has a heavy countershaft, with tight and loose pulleys, 10 inches diameter by 6 inches face, and should run 900 revolutions per minute.

For further particulars see description of Sweepstakes Double Surfacer, Matcher and Moulder, p. 10.

ROWLEY
&
HERMANCE
WILLIAMSPORT
PA.

DOUBLE SHOP SURFACER.



THE above cut illustrates our New Improved Twenty-six Inch Extra Heavy Double Shop Surfacer, for use in planing mills, furniture factories, etc., etc., and is especially recommended for surfacing rough hard-wood and yellow pine lumber, producing a uniform and very smooth surface.

The frame is very heavy and is absolutely rigid against the strain put upon it by the working parts, as the cut plainly shows.

The table frame is a heavy casting in one piece and rests upon inclined planes or sliding wedges, making the most solid support known for holding lumber to planer knives.

The wedges are moved by a hand wheel conveniently located, one turn of which raises the table one-sixteenth inch.

The cylinders are of forged steel with long and heavy journals running in genuine babbitt lined boxes, and have ample belt power for any duty. Top cylinder is belted at both ends.

The feed rolls are five inches diameter and are operated by a train of heavy gearing which makes them positive and powerful, and the mesh of the gears is not the least affected by heavy cuts or by raising or lowering the table. All rolls are geared and the connections are strong and durable.

The chip breaker is very close to the cutting edge of the knives and moves in a circle, the center of which is the center of the cylinder, so the same relative position is always secured, preventing clipping of ends.

The under-head is attached to the table and is moved with it for different thicknesses of stuff. It also has an independent adjustment for light and heavy cuts, and by means of inclines or wedges may be raised or lowered while in operation, and is always in line with the table top.

The table, back of under-head, is attached to the headstock and needs no attention when the head is being changed for different cuts. This also has an independent adjustment.

The pressure plate over the under-head is operated by inclines or wedges and is always perfectly parallel with the same.

This machine has many other new and important features not enumerated above, which make it the best machine of its class in the market.

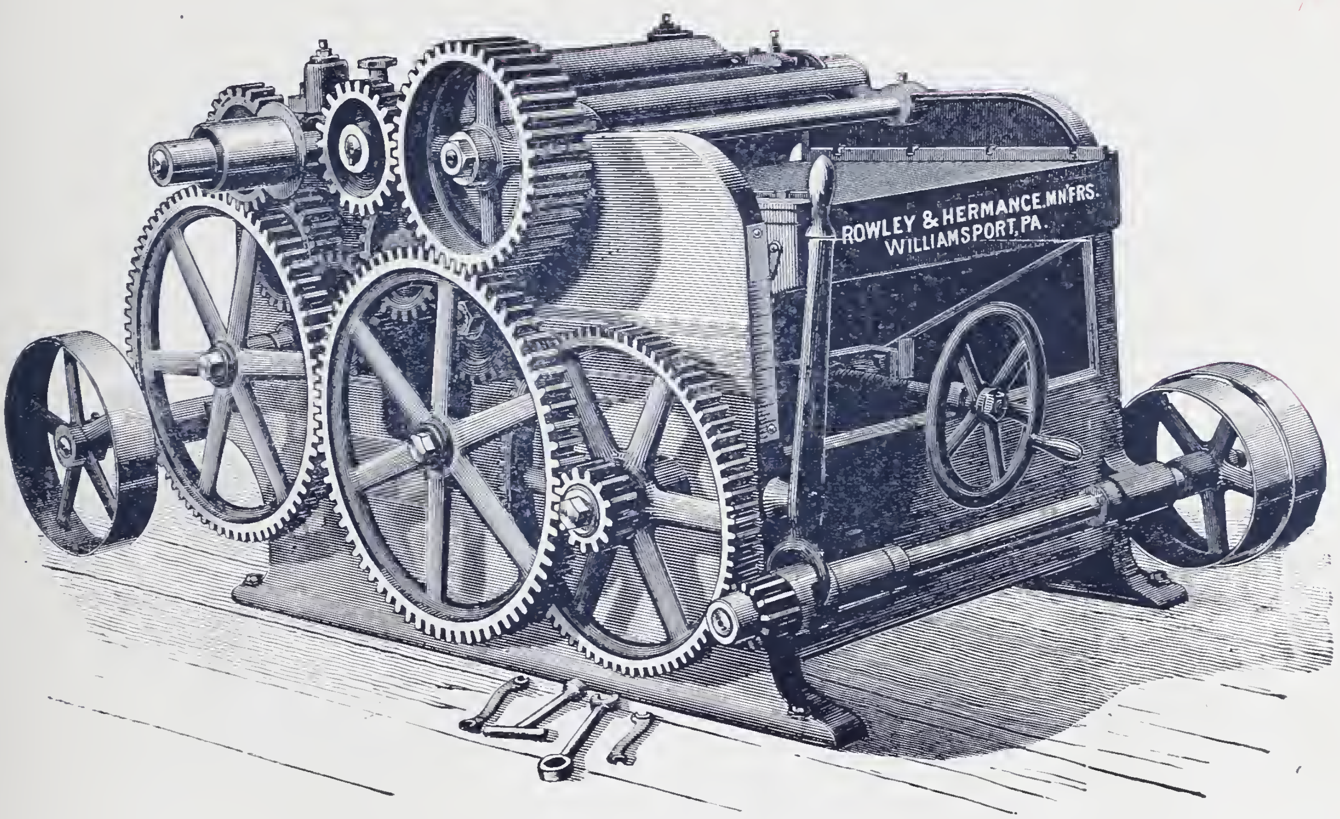
It will plane from 1-16 inch to 8 inches thick, and has two rates of feed, viz.: 30 and 40 lineal feet per minute.

Tight and loose pulleys to drive top cylinder 12 inches diameter by 7 inches face and should run 800 revolutions per minute. Tight and loose pulleys to run under cylinder, 10 inches diameter by 6 inches face and should run 950 revolutions per minute.

Pulleys on top cylinder 4½ inches diameter by 5 inches face; speed of cylinder 4250 revolutions.
" " lower " 4½ " " " 6 " " " " " 4250 "
Weight of 26-inch Double Surfacer including Countershafts, - - - - - - 4650 pounds.
" " 24-inch " " " " - - - - - - 4400 "

Built in four sizes; 24 in., 26 in., 28 in. and 30 in.

FURNITURE PLANER, OR SINGLE SHOP SURFACER.


ROWLEY & HERMANCE.MNFRS.
WILLIAMSPORT,PA.

THE above cut illustrates our New Improved Twenty-six Inch Extra Heavy Single Shop Surfacer, for use in planing mills, furniture factories, etc., etc., and is especially recommended for surfacing rough hard-wood and yellow pine lumber, producing a uniform and very smooth surface.

The frame is very heavy and is absolutely rigid against the strain put upon it by the working parts, as the cut plainly shows.

The table frame is a heavy casting in one piece, and rests upon inclined planes or sliding wedges, making the most solid support known for holding lumber to planer knives.

The wedges are moved by a hand wheel conveniently located, one turn of which raises the table one-sixteenth inch.

The cylinder is of forged steel with long and heavy journals running in genuine babbitt lined boxes, and has ample belt power for any duty, and is belted at both ends.

The feed rolls are five inches diameter and are operated by a train of heavy gearing which makes them positive and powerful, and the mesh of the gears is not in the least affected by heavy cuts or by raising or lowering the table. All rolls are geared and the connections are strong and durable.

The chip breaker is very close to the cutting edge of the knives and moves in a circle, the center of which is the center of the cylinder, so the same relative position is always secured, preventing clipping of ends.

This machine has many other new and important features not enumerated above, which make it the best machine of its class in the market.

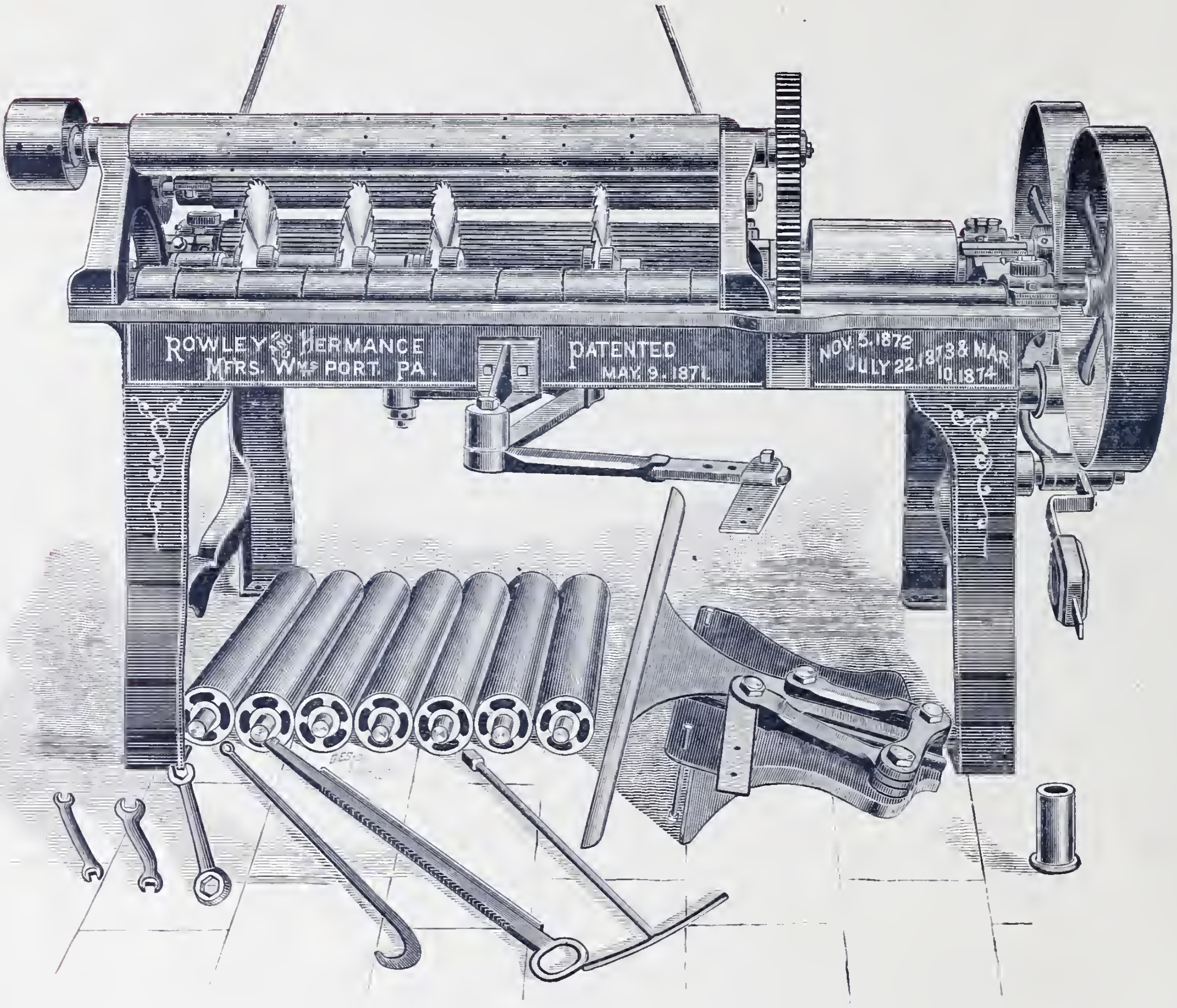
It will plane from 1-16 inch to 8 inches thick, and has two rates of feed, viz.: 30 and 40 lineal feet per minute.

The countershaft has tight and loose pulleys 12 inches diameter by 7 inches face, and should run 800 revolutions per minute.

Pulleys on cylinder 4½ inches diameter by 5 inches face; speed of cylinder 4250 revolutions.

Built in four sizes; 24 in., 26 in., 28 in. and 30 in.

Nichols' Patent No. 3 Double Edger, Improved.

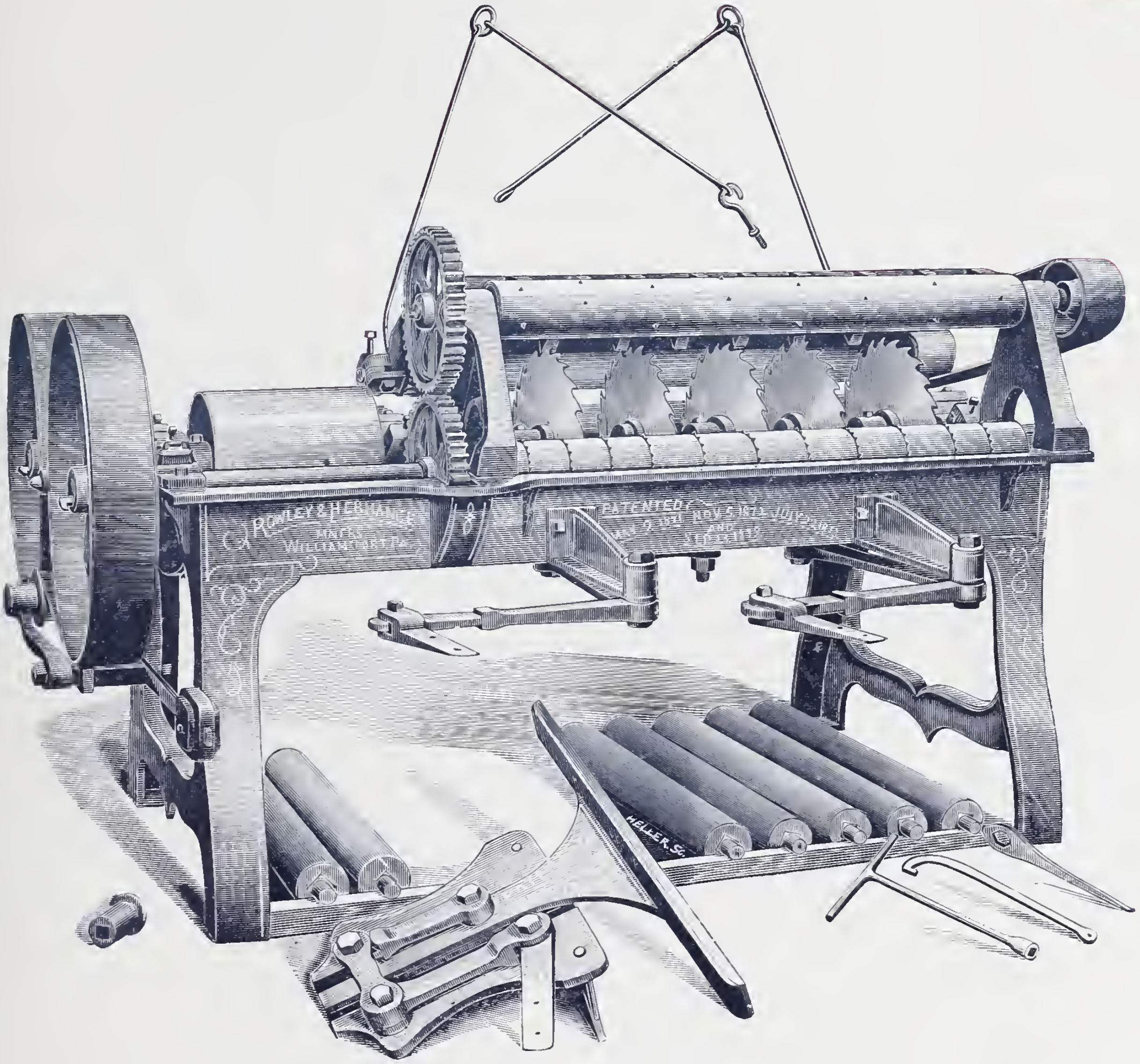


VIEW SHOWING RIGHT-HAND MACHINE.

THIS MACHINE is made from entirely new patterns, and is designed for edging boards in saw mills and sawing plank and boards, from the muley or circular, into joist, scantling, flooring, battens, roofing-lath, &c., &c. It is provided with a feed roll in front, composed of small saws and collars placed alternately, and has two fluted feed rolls behind the saws, one below and one above, and a spiked roll on top (with reverse feed) which returns any board requiring to be re-edged. For edging, one saw is made stationary, and by a suitable device, convenient to the operator, the other saw is adjusted to any width. By an entirely new and simple device, dull saws can be replaced with sharp ones in less time than one minute, without affecting in the slightest degree the alignment of the arbor. Our method of changing the saws is not equaled by any other edger made. For ripping, an adjustable gauge is provided, with a lever running to the operator. This gauge is not used except when it is desired to rip lumber that has already been edged. The adjustable saw is also actuated by a lever by which the saw is adjusted for any width of stuff. Both of the above levers are within easy reach of the operator when feeding long stuff to the saw. The adjustable saw is provided with our patent shifter fork, by which any lost motion caused by wear may be taken up. This is a very important feature where accuracy is desired. By the above means the saws and gauge are instantly set in any required position and rigidly held in place. It will edge 36 inches wide by 5 inches thick; has four 16-inch saws and four saw collars. Driving pulley, 10 inches diameter by 10 inches face, and should run 2,200 revolutions per minute.

In ordering, state if you want the driving pulley on the right or left hand as you face the saw in front.

Nichols' Patent No. 4 Double Edger, Improved.



VIEW SHOWING LEFT-HAND MACHINE.

IS constructed the same as No. 3, shown on page 14, except that it is a heavier, stronger and much larger machine and is built for greater capacity and variety of work. It will edge two boards at once, or when bill stuff is being sawed, part of the saws may be moved to one end and edging done without removing them from the arbor. By means of adjustable saws and levers on each side of machine two boards of different widths may be edged at the same time. Our new device for removing the saws is simple, quick and effective. Saws can be changed in less than one minute without moving the arbor.

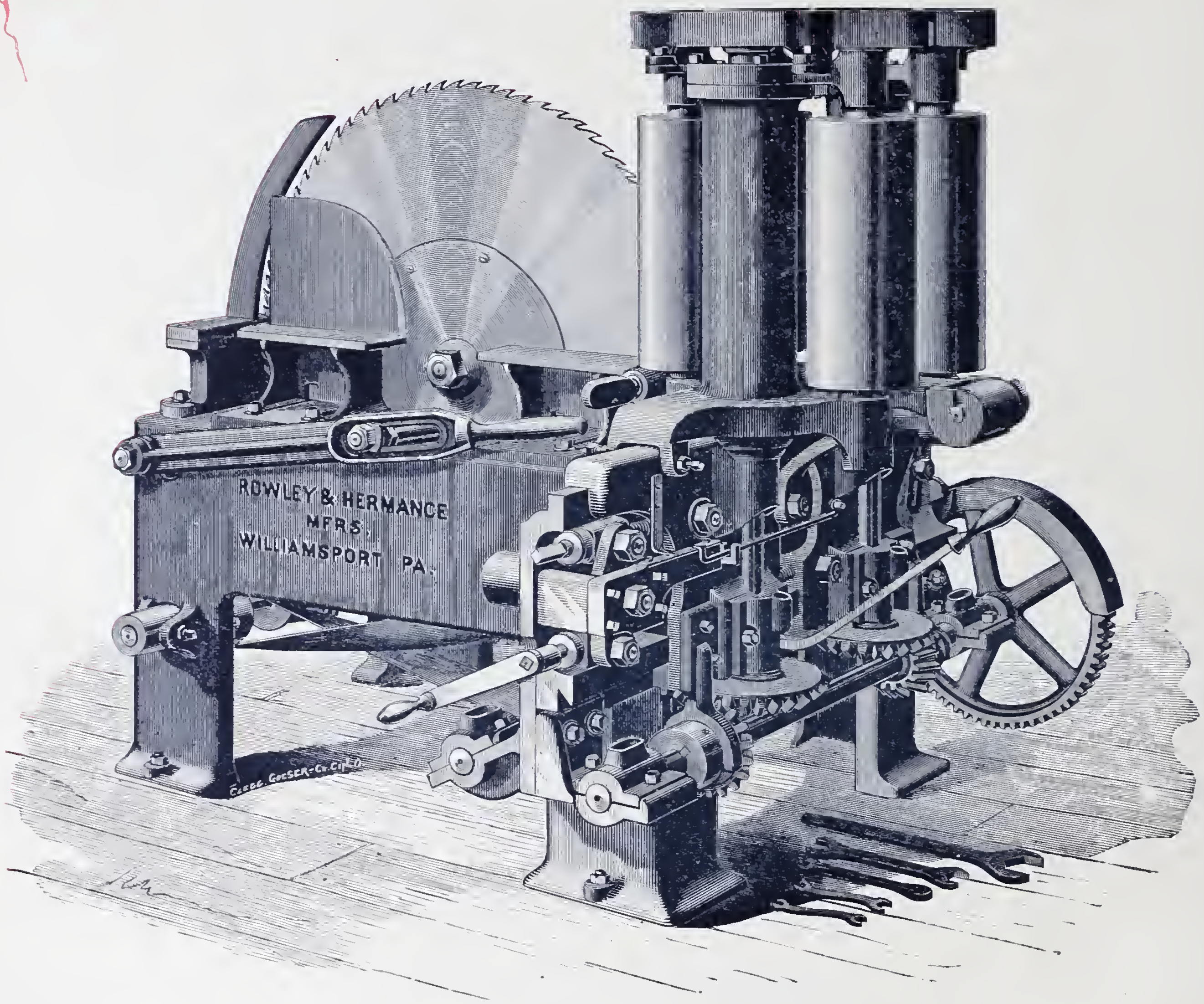
The levers for adjusting the saws and gauge are convenient to the operator, and the saws can be instantly set for any width. It will edge 42 inches wide x 6 inches thick, has five saws 18 inches diameter. Driving pulleys 12 x 12, and should run 2,000 revolutions. Weight, 2,000 lbs. Weight with frame, 2,700 lbs.

For further description, see page 14.

We build both No 3 and 4 Edgers, either right or left hand as ordered, but have in stock only the right-hand machines. Also furnish the wooden frames when ordered.

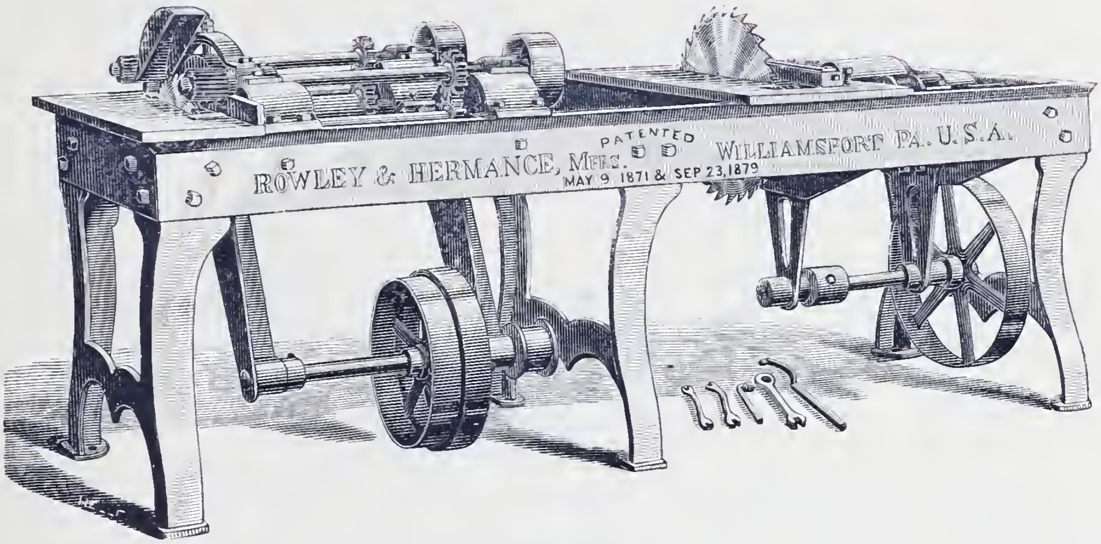
In ordering be sure to state whether you want the driving pulley on the right or left hand side as you face the saws in front.

Our Improved New Champion Re-Sawing Machine.



THE above cut represents our 38 in. New Re-Sawing Machine. The frame is very heavy. It is cast in one piece and is specially designed to rigidly support the working parts. The arbor is made of steel and is heavy. It overhangs the box next to the saw, which admits of the saw being easily removed. The saw arbor boxes are connected by a heavy yoke and gibbed to the frame, and are moved to and from the rolls by means of a screw, keeping the saw always in line with them. The rolls move upon the platen in pairs, and readily adjust themselves to unequal thicknesses of lumber, and are perfectly self-centering. They open 6 inches, and a 1-inch board may be cut from a 4-inch plank. One pair of rolls may be made stationary, and lumber of even thickness cut upon that side, and all inequalities in thickness be confined to the other side. The table upon which the lumber rests is very close to the rolls, which admits the sawing of narrow boards. The lumber is guided by an adjustable arm (not shown in cut) on each side of the saw; both arms are fitted with springs and may be swung entirely free of the saw by simply removing a pin. The feed works are strong and reversible, and by a slight movement of the lever shown at front of machine, the lumber may be run from the saw much more rapidly than it is fed to the saw. The feeding gears are large, strong and not liable to wear out nor break by hard service. The platen that supports the rolls turns upon a centre for sawing beveled siding, etc., and is regulated by a graduated index plate, which can be conveniently seen by the operator. By means of a novel attachment the saw may be easily lifted out of the frame and kept suspended on a pin in the center, thus avoiding the bending and twisting of the teeth, which often occurs when the saw is rolled out in the usual way, as the teeth are very thin and the saw heavy. The saws are furnished either segment or solid plate, and are ground taper to No 16 gauge unless otherwise ordered. The segment saw of large size will not buckle when hot, as the joints permit the expansion of the metal, and will cut picture frame backing as well as the thickest plank. The saw is filed and set, and the machine is thoroughly tested before leaving the works, and is guaranteed to give entire satisfaction.

IMPROVED GANG LATH MILL AND BOLTER.


ROWLEY & HERMANCE, MFRS.
PATENTED
MAY 9 1871 & SEP 23,1879
WILLIAMSPORT PA. U.S.A.

THE above combined Lath Mill and Bolter is especially adapted for sawing lath and pickets. It is built entirely of iron and steel, has a heavy iron table, planed true and smooth, and is a heavy, solid machine. The bolting saw is placed at the right hand end of the machine; is 20 inches in diameter, and is mounted on a heavy steel arbor, with long bearings and self oiling boxes. The guide is so arranged that it may be changed instantaneously by a simple movement of the hand from 1½ inches for lath, to 2½ for pickets. The stuff is fed to the saw by a feed roll in the table composed of small saws, with collars between. There are guide pins in the table which may be adjusted to suit.

Driving pulley 8 inches diameter by 8-inch face, and should make 1,600 revolutions per minute.

The lath saws are at the left of the machine; are two in number, (unless otherwise ordered,) 14 inches in diameter, mounted on a heavy steel arbor, with a 7-16 inch collar between. The bolts are fed to the saws by a feed roll in the table; directly over this is a fluted pressure roll, held down by a spring. The stuff is carried from the saws by a smooth roll in the table and a fluted pressure roll above. These are all feeding rolls, being connected by suitable gearing. These rolls are so arranged that the stuff cannot leave the guide, insuring the lath to be of uniform thickness. The feed is strong and reliable.

By an arrangement of the hood and feed rolls it is impossible for an accident to occur by a piece being thrown back by the saws.

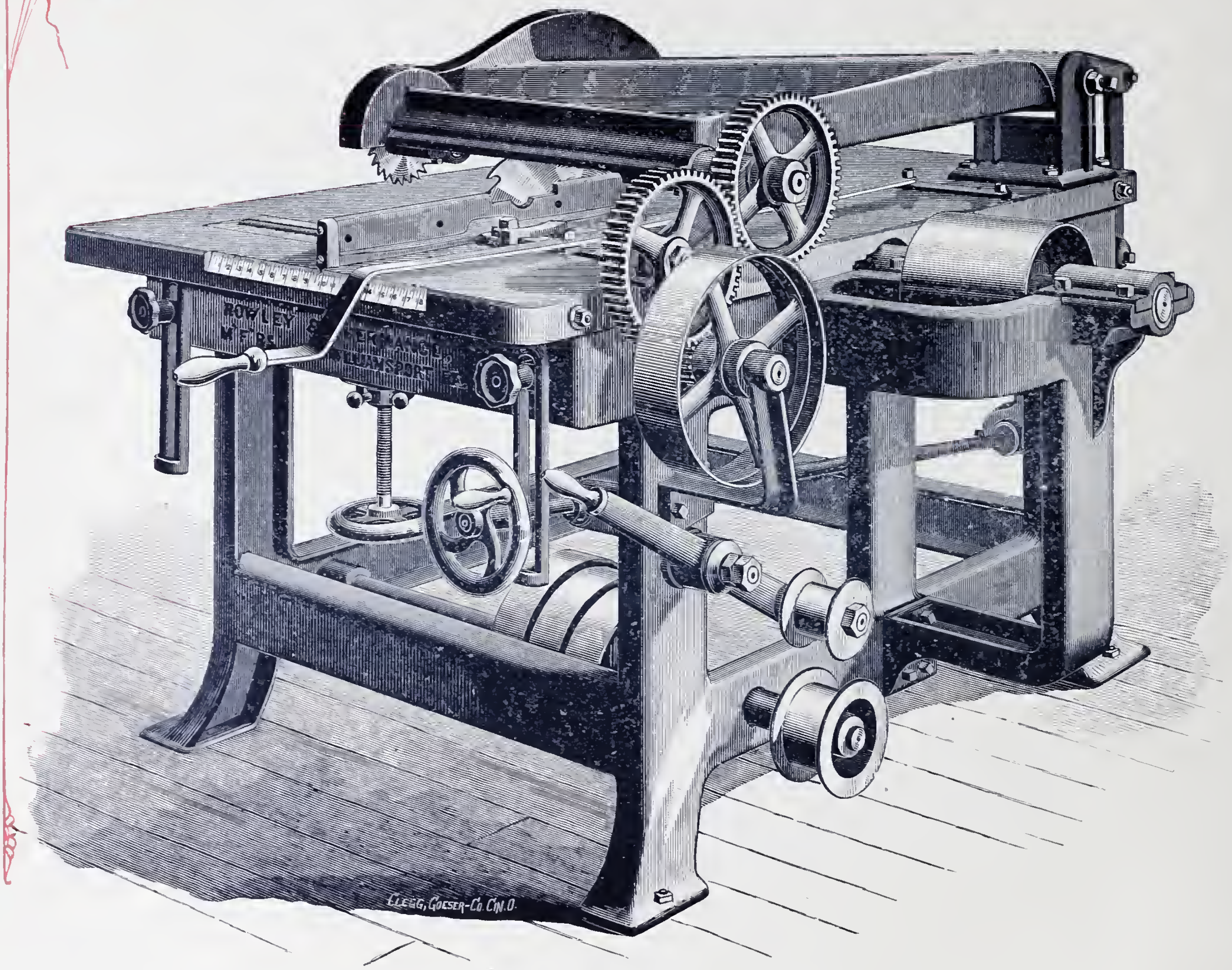
Capacity when running at slow feed 60 lath per minute. When running at fast feed 88 lath per minute.

Size of driving pulley, 8 inches diameter by 8-inch face, and should make 2,500 revolutions per minute.

This machine is complete in every particular, requires no countershafts, and is sufficiently long to admit of bolts being piled between the bolter and lath mill.

It is very strong and substantially built, and weighs 1,800 pounds.

New Heavy Pattern
No. 2 Lightning Self-Feeding Rip Saw Table.


ROWLEY & HERMANCE CO. MFRS. WILLIAMSPORT
CLEGG, GOESER-CO. CIN. O.

ACCOMPANYING engraving represents our new improved heavy No. 2 Self-Feeding Saw Table, which is adapted to all kinds of work for which machine on page 16 is intended, beside being much heavier and suited to a greater variety of work.

The frame is heavy and substantial and is cast in one piece, with a very rigid support for the bearing outside of driving pulley.

The table, 3 feet 8 inches wide by 5 feet 2 inches long, is glued up of alternate strips of maple and cherry wood and is bolted through its entire width, thus effectually guarding against future checking or splitting.

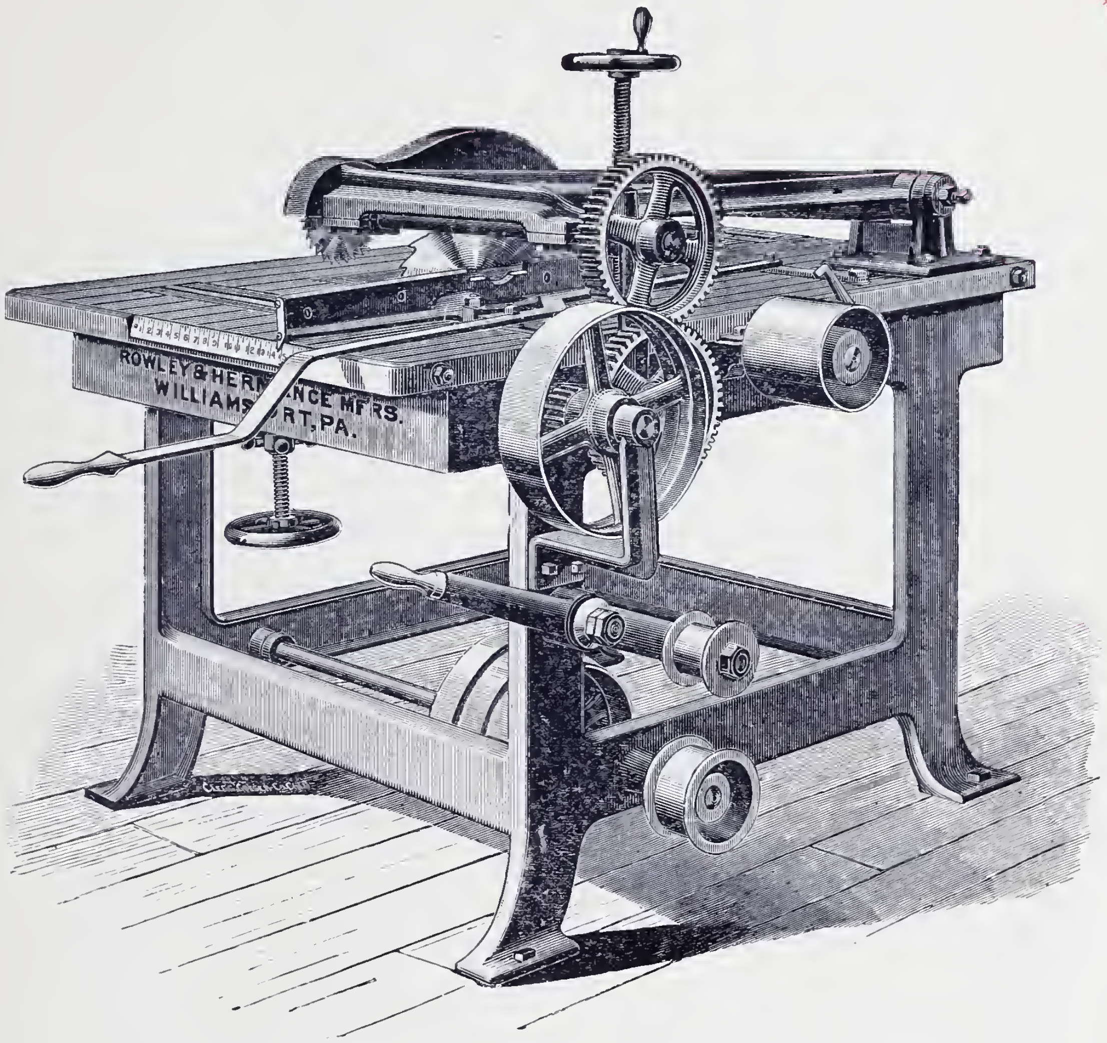
The feed works are amply strong for any work within the capacity of the machine, and conveniently and instantly stopped or started by means of a lever at front of machine.

The arm which carries feed saw is raised and lowered by means of a hand wheel which is at front of machine, and easy of access, and is self-adjusting for irregularities in thickness of lumber.

The gauge for regulating width of stuff being sawed is the most accurate and convenient one yet produced; it is simple and positive and can be changed almost instantly, and is graduated to $\frac{1}{8}$ inch. It can be set to any fraction of an inch, as it is not governed by notches. A 24-inch saw may be used, but one 18-inch saw only is furnished with the machine.

It will rip to 8 inches thick. An attachment for sawing straight or bevel siding is furnished extra if desired. Size of driving pulley, 8 in. x 8 in., and with 18-inch saw should run 2500 revolutions per minute. Weight 1400 pounds.

No. 1 Lightning Self-Feeding Rip Saw Table.


ROWLEY & HER NCE MFRS.
WILLIAMS RT, PA.

NEW DESIGN. NEW PATTERN.

THIS Self-Feeding Rip Saw Table is intended to take the place of the ordinary hand-feed rip saw table, for ripping lumber into strips of any width up to 16 inches wide and 6 inches thick.

It will pay any users of rip saws to replace their hand rip saws with this machine, as it will double their capacity with less hard work, and lessen the liability of accidents.

The frame is very heavy and strong, being made entirely of iron, cast in one piece.

The table is of hard and well seasoned wood, glued up of narrow strips.

The feed works are very powerful, capable of ripping 3-inch plank at same speed as 1-inch boards; the feed roll marks are taken out by the saw, leaving no mark on the lumber, and is started and stopped by a tightener.

There are three rates of feed, slow, medium and fast, 45 ft., 100 ft. and 160 ft. per minute respectively.

The patent setting device is entirely new and novel. The gauge can be set at any mark on the index plate, or at any fraction of an inch, and by a slight movement of the lever is held rigidly in position. The arm which carries the feed saw can be adjusted to different heights by means of the vertical screw with hand wheel convenient to operator.

The table is hinged at back end, and can be raised or lowered by means of hand-wheel screw at front end, as shown in cut, and the arm may be raised clear of the lumber and the machine can be used as an ordinary hand rip saw table.

A shield covers the saw when in operation and the table is provided with a spreader, making it absolutely impossible for a board or short pieces to be caught and thrown over the saw, thus avoiding accidents from this cause.

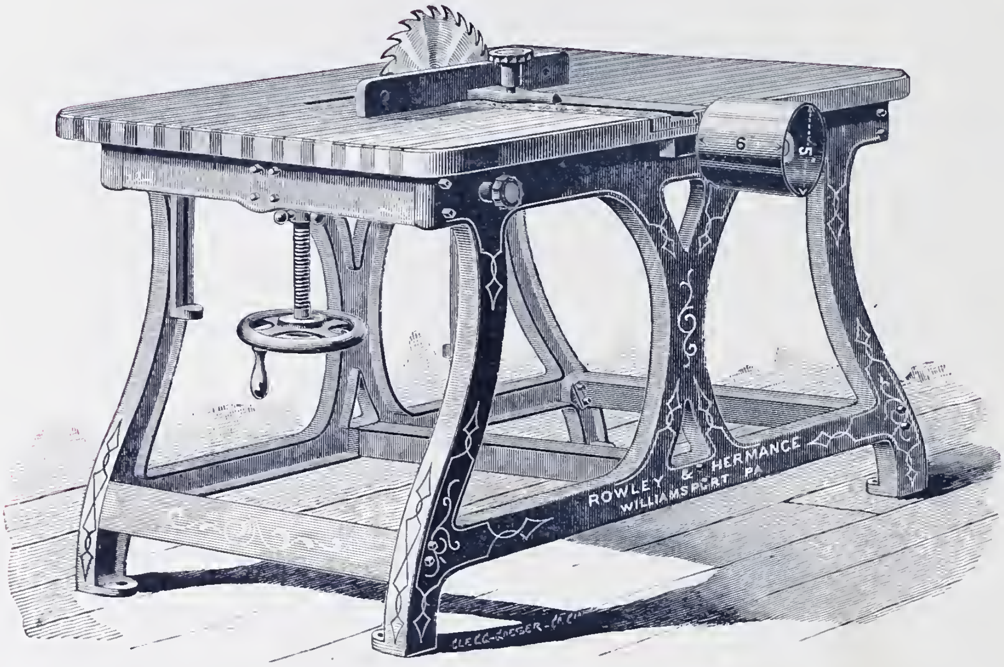
We furnish one 14-inch saw, one feed saw and necessary wrenches with each machine.

The pulley on arbor is 6 in. diameter by 6 in. face, and should run 2800 to 3000 revolutions per minute.

We will guarantee this machine to be the best self feed rip saw table yet produced.

Size of table, 3 feet 6 inches wide by 4 feet 6 inches long. Weight, 1,000 lbs.

PATENT IRON FRAME RIP-SAW TABLE.



A STRONG, substantial machine, for use in planing mills, furniture and box factories, car and agricultural works, etc., etc. The frame is well proportioned for heavy as well as light work, and all joints are planed and securely bolted. The table is 3 feet wide by 4 feet 3 inches long, and is glued up of alternate strips of maple and cherry.

The gauge is made of iron. The body of gauge is let into the table flush with top, and the slide is accurately dove-tailed into it, and is fastened into position with hand screw, and when tightened is always perfectly in line with the saw. The gauge is also graduated by ⅛ inch up to 16 inches and will rip 16 inches wide.

It is hinged at one end, and has a raising screw at the other, convenient to operator, with slotted supports held by bolts and hand wheels to hold the table firmly at required height.

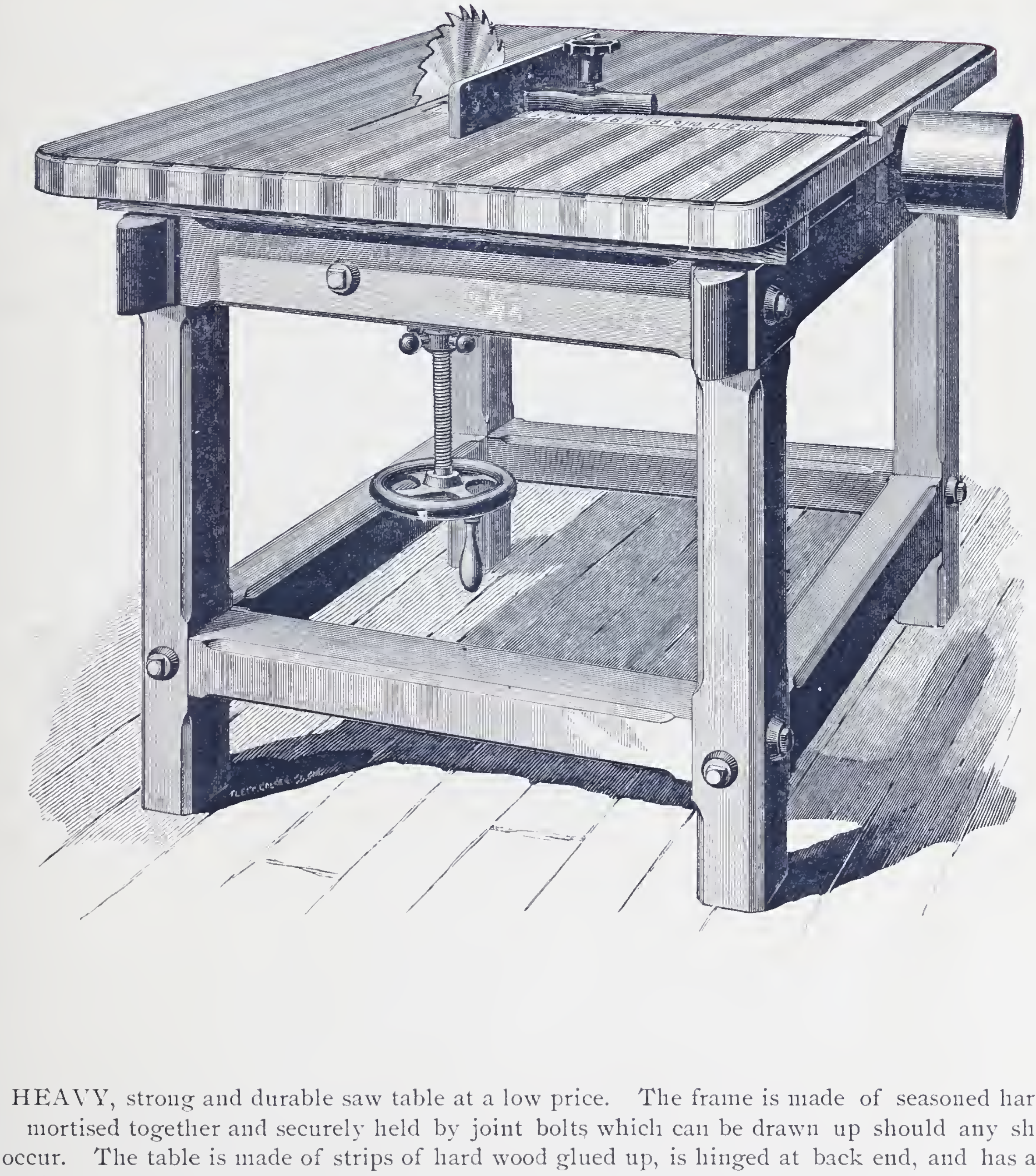
The arbor is made of best crucible steel, and has our patent adjustable self oiling sliding cap box, by which all wear can be taken up. The arbor bearings are formed in the cross girt of the frame.

We furnish with machine one 14 inch circular saw with 1¼ inch hole, and one ordinary rip saw gauge.

We also make a bevel gauge that can be set at any bevel up to 45°, when ordered.

The pulley on arbor is 5 inches diameter by 6-inch face.

WOOD FRAME RIP SAW TABLE.

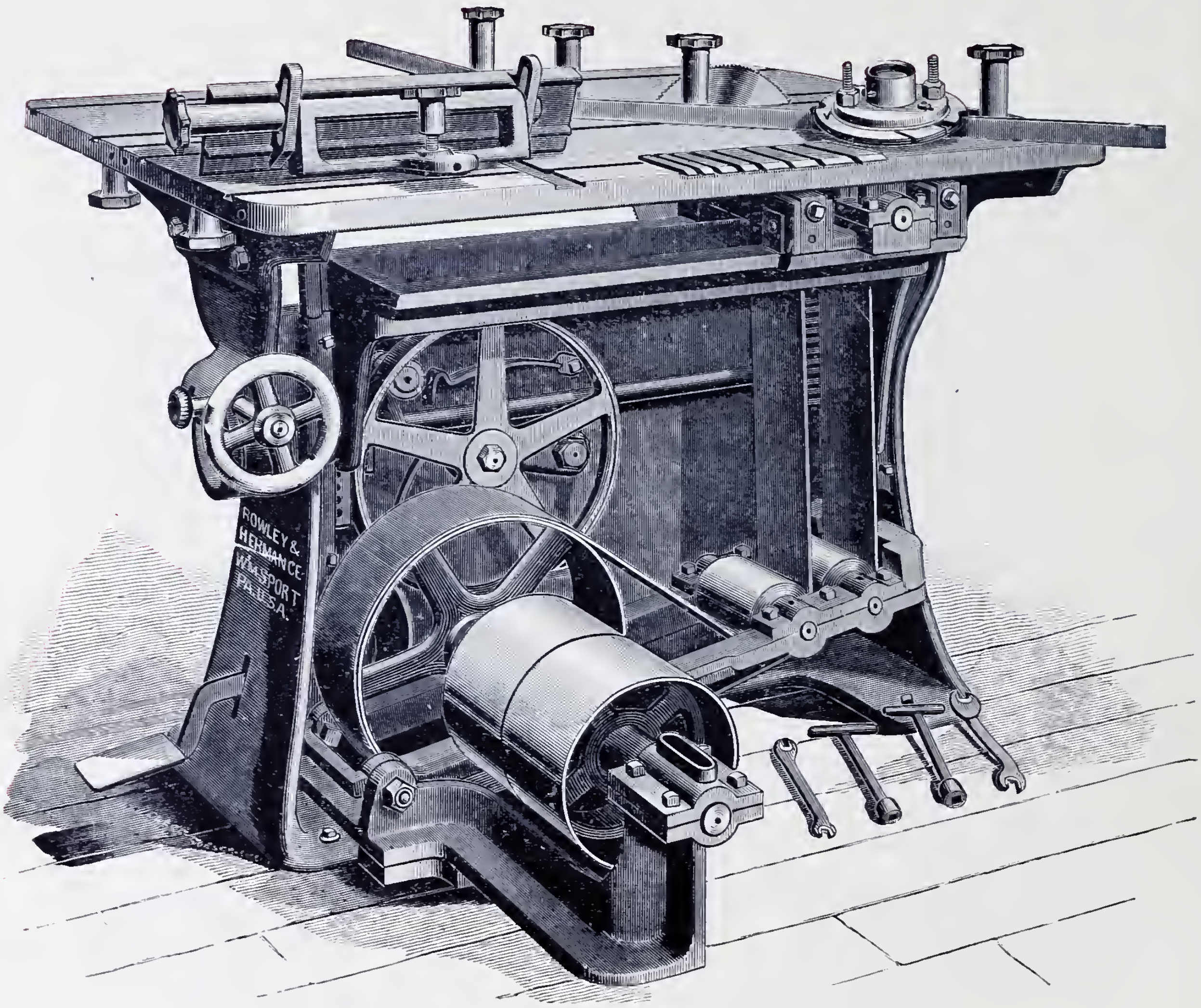


A HEAVY, strong and durable saw table at a low price. The frame is made of seasoned hard wood mortised together and securely held by joint bolts which can be drawn up should any shrinkage occur. The table is made of strips of hard wood glued up, is hinged at back end, and has a raising screw in front on which there is a hand-nut that holds the table securely when set at any required height.

The gauge is our improved pattern, graduated to ⅛ inch, and 18 inches long.

The arbor is of best crucible steel, of sufficient size for heavy work, carrying saw with 1¼ inch hole. We furnish one rip saw 14 inches diameter with machine. Pulley on arbor 5 inches diameter by 6-inch face and should run 2,600 revolutions per minute.

Power-Feed Variety Cross-Cut Saw Bench.

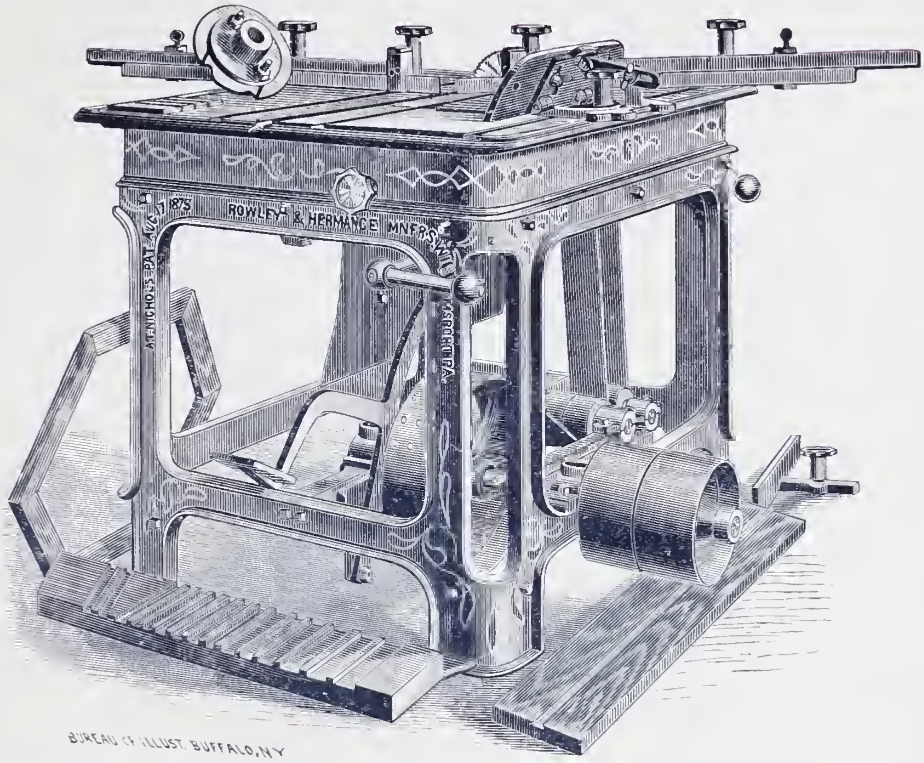

ROWLEY & HERMANCE WMSPORT PA. U.S.A.

PATENTED.

THE most complete machine yet produced for door, sash, blind and frame work, and all jobbing in planing mills, furniture factories, car and wagon shops, and other places where rapid and accurate cross cutting, ripping, grooving, dadoing or mitreing is to be done. The frame is very heavy and cast in one piece. The ways upon which the saw carriage travels are raised and lowered for changing depth of cut by means of worm gears operated by hand at front of machine. The table is planed true and straight, with dovetailed slots, full length. The arms or gauges can be set at any angle and held firmly in place by four bolts with dovetailed heads, and can be quickly removed, leaving top of table clear when bevel gauge is to be used for ripping or plowing. The saw is brought forward by power feed applied by foot treadle, the heel of the operator resting upon the floor and the toe on treadle, the slightest depression of which applies the feed to the saw carriage, which returns immediately on being released. It is the only machine of the kind in market that gives the operator perfect control of the saw; the rate of feed being governed by the pressure on the treadle. It will saw 20 inches wide x 4½ inches thick with 14 inch cross-cut saw, which is furnished with the machine. One endless belt is also furnished.

Tight and loose pulleys 9 inches diameter x 5½ inches face. Weight 1,500 lbs.

COMBINATION SAW BENCH.


ROWLEY & HERMANCE MNFRS.
1875
BUREAU OF ILLUST. BUFFALO, N.Y.

Patented April 17, 1875, and July 18, 1876.

THE above is the most complete machine yet offered to workers in wood for the purpose intended. It is a combined cutting-off saw, rip saw, mitre sawing, bevel sawing and dadoing machine. It is invaluable in making window frames, mitreing heavy mouldings, plowing and grooving window sills, furniture work, &c.

It does the work of four or five machines, and occupies the space of but one. The driving belt is self straining. It is not complicated; can be changed from one use to another in one minute.

The saw mandrel is placed on a carriage, (under which are rollers to lessen the friction,) and travels on ways. The saw is drawn toward the operator by the foot treadle, which allows the operator the use of both hands to handle the stuff, by which arrangement he can accomplish more work than with any other cutting-off saw bench in the market. The mandrel is raised and lowered by means of rack and pinion, to adjust the saw and dado head to different thicknesses of work.

It will cut 16 inches wide.

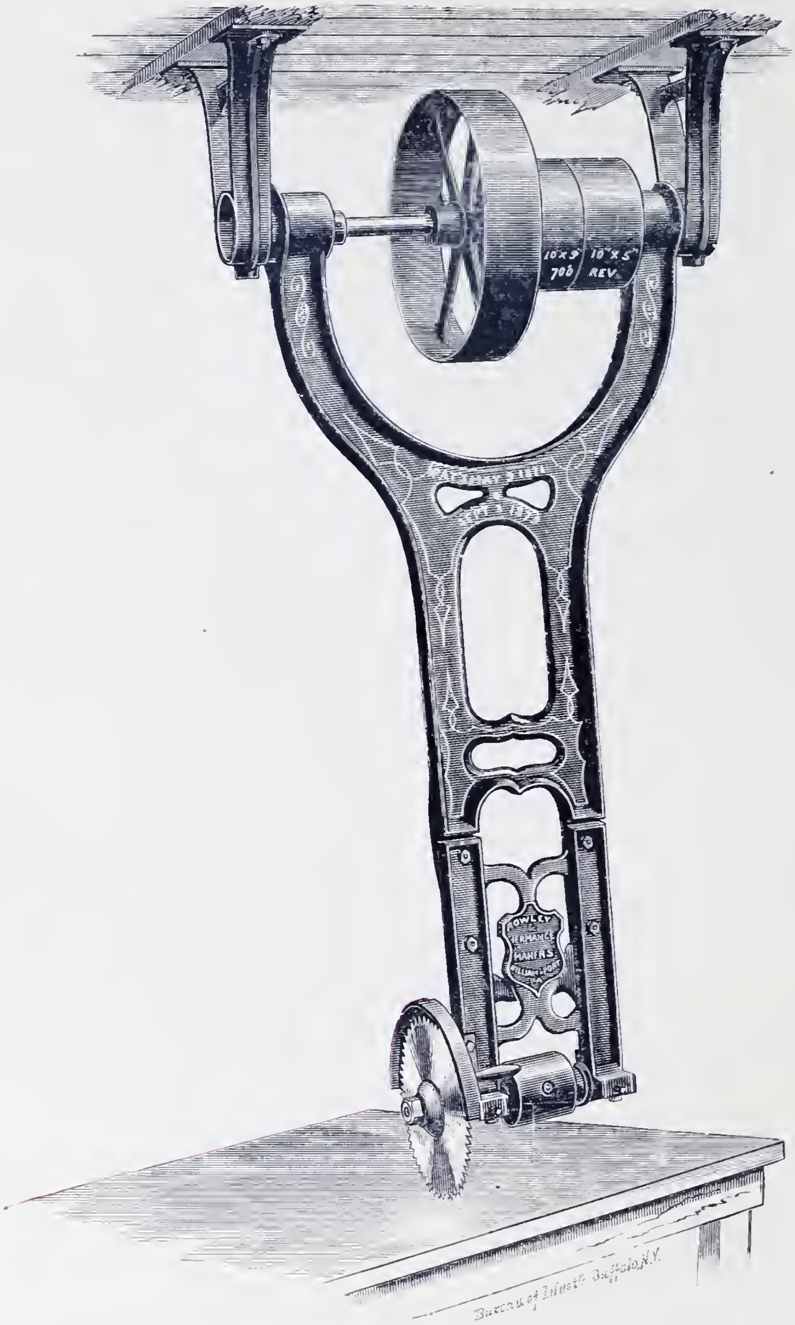
Tight and loose pulleys, eight inches diameter, four inches face, and should run 800 to 900 revolutions per minute.

Every machine is fully warranted and a trial solicited.

We ask particular attention to the fact that we have no connection with any other company manufacturing this class of machinery.

All persons are forbidden to make or use, under penalty of the law, our patent sliding table; also the patented slots running through the table parallel with the saw, for the purpose of adjusting the arms.

New Patent Swing Cut-Off Saw.



Bureau of Illust. Buffalo, N.Y.

THIS machine is entirely new, and has the following advantages over any other swing saw before made:

1st. The frame swings upon the hangers, instead of upon the countershaft as in other machines.

2d. The hub on the hanger is turned, and the top of the frame is bored to fit, thereby securing accurate cross cutting.

3d. It is adjustable for different heights of ceiling, as the saddle holding the arbor has a sliding adjustment of five inches.

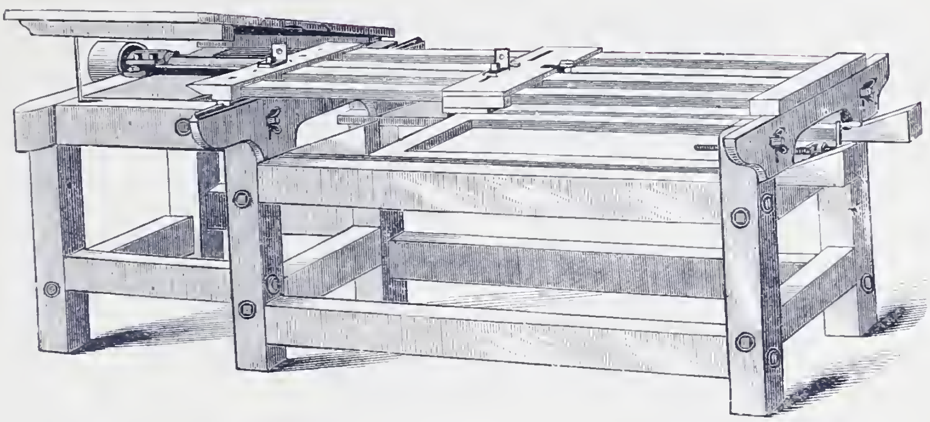
4th. Being adjustable the saw can be used entirely up.

5th. It has our patent sliding cap box.

6th. The saw is protected by a shield.

The great objection to swing saws has been that accurate sawing was impossible. With the above arrangement we have overcome the difficulty. We furnish one 14-inch saw with machine. Distance from base of hanger to center of arbor, at highest point, 6 feet, 7 inches. Tight and loose pulley, 10 inches diameter by 5 inches face, and should make 700 revolutions per minute.

CUT-OFF SAW FOR SASH AND DOOR WORK.

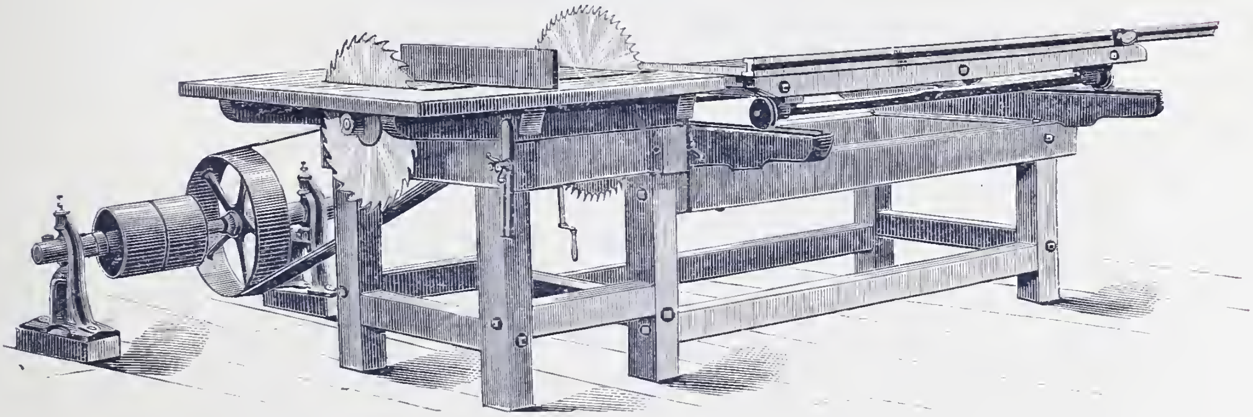


THIS machine is the old, popular pattern that is in use in nearly every mill for cutting sash and door stuff, panels, &c., &c., and is too well known to need description.

Size of pulley on arbor, 5 inches diameter by 5 inches face. Speed, 2,600 revolutions per minute.

We furnish one 14-inch cross cut saw with each machine.

Cutting-Off and Splitting Saw Bench with Carriage and Countershaft.



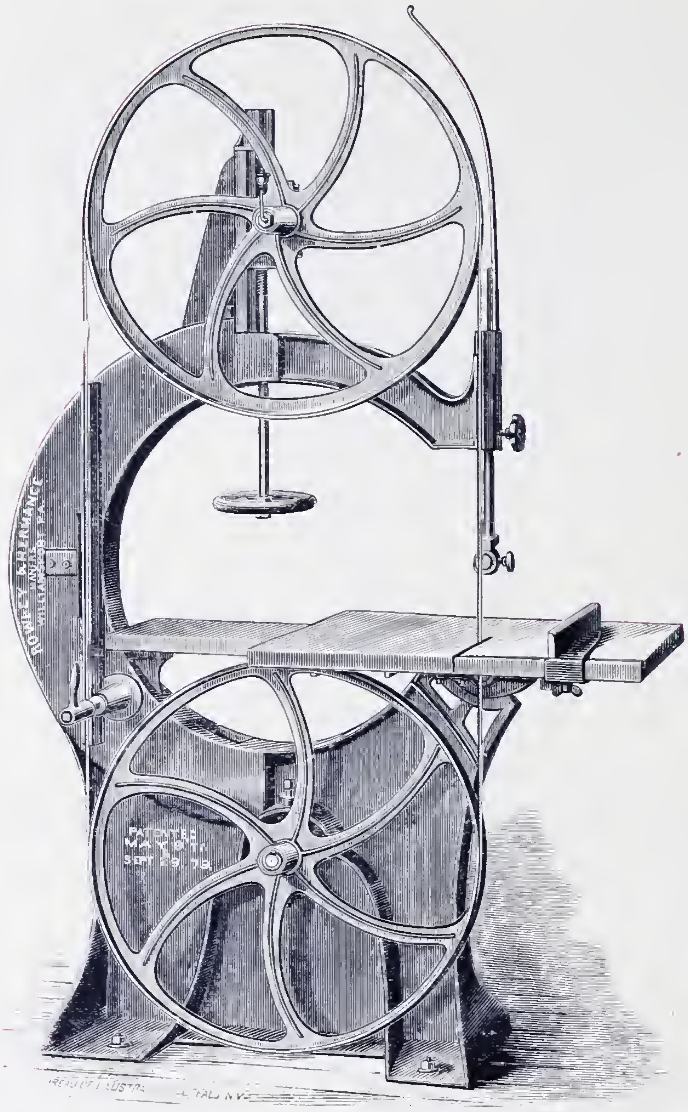
A HEAVY, strong and substantial saw bench for job work, railroad car shops, agricultural implements, wagon factories, &c., &c., Our improved and graduated rip saw gauge is used on this machine, and can be quickly removed when used as a cross-cut saw.

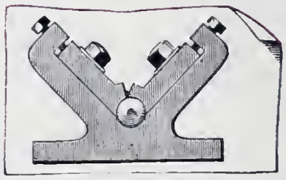
The countershaft has tight and loose pulleys 10 inches diameter by 6 inches face, and should run 600 revolutions per minute.

We furnish one 20-inch cross cut saw and one rip saw 18 inches diameter.

We build the cut-off saw table without the rip saw when desired.

No. 1 BAND SAW.





WE here represent an entirely new machine for the above purpose. The frame, well proportioned, is cast in one piece, and has great strength. It is built in a first-class manner throughout. Our patent sliding cap box (see cut above) is used on this machine. It can be quickly and conveniently adjusted, and is in every sense of the word a "handy" machine. The wheels are 36 inches in diameter, with 1¼ face, are light and strong, and are adjustable, so that the saw can be made to run accurately on any portion of their faces. They are covered with pure Para rubber, and are so arranged that the saw may not be over-strained when quickly started. The raising screw is square thread instead of V thread, as on other machines, therefore much more durable and less liable to bind and wear. The steel compensating spring is so arranged as to allow for expansion and contraction of the saw. The table may be adjusted to any angle not exceeding 45°. An improved belt shifter, convenient to the operator, is attached. The driving shaft, as well as the guide rod, are of the best crucible steel. The guide rod being of steel, instead of iron, as in other machines, is much stiffer, and admits of the saw being held more rigid. Saws from 17 feet to 18 feet 6 inches can be operated. The machine will cut 12½ inches thick, and being 33½ inches from blade to frame, will swing a circle of 67 inches. We furnish a parallel slitting gauge, scarfing frame, one pair soldering tongs, one ½-inch saw blade, and necessary wrenches, with each machine. We test each machine on actual work before leaving our shops, and warrant entire satisfaction on trial of 30 days. Tight and loose pulleys, 12 inches diameter by 4-inch face, and should make 450 revolutions per minute. Weight, 1,500 pounds.

FAVORITE SCROLL SAW.

THIS machine has proved to be one of the most popular Scroll Saws made, and gives entire satisfaction wherever used. It is intended for furniture, sash, door and blind factories, piano, carriage and pattern shops, &c., &c. The frame is cast in one piece, making a very solid base, which allows a high rate of speed without jar or trembling. The strain consists of duplex steel springs so arranged as to produce an unusually even tension, admitting of high speed, and can be raised or lowered for any thickness of work up to 12 inches.

The operator can change the rake of the saw while in motion, by hand wheel underneath the table. This cannot be done on any other machine made.

There is no friction on the strain, and the lightness of pitman and cross-head causes no perceptible jar when running at highest rate of speed.

The changing from inside to outside work is instantaneous. The saw is passed through table and slides into cross-head, and cannot miss catching.

An important feature is the adjustment of the box on the lower end of pitman, which can be adjusted up until box is worn out. A new box can be substituted in a few minutes, saving cost of new pitman.

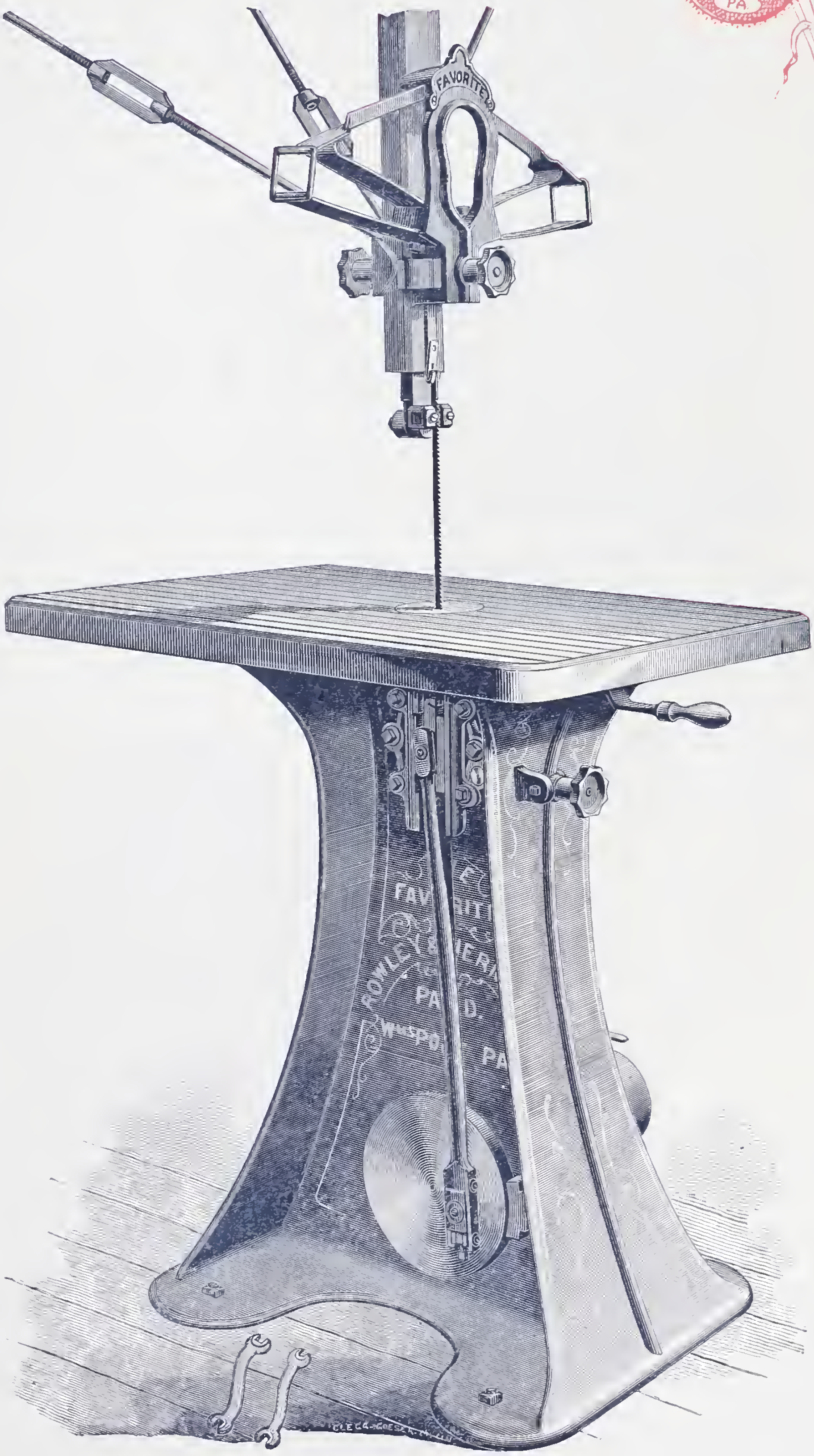
The machine has a combined brake and shifter, operated by hand lever convenient to sawyer. It has great force, and will instantly stop the machine.

The top is of hard wood strips glued together.

The countershaft runs in our patent three-part journal box, which causes it to run very steady. In fact it has all the good points of the best machines, together with our improvements, which make it the best scroll saw made.

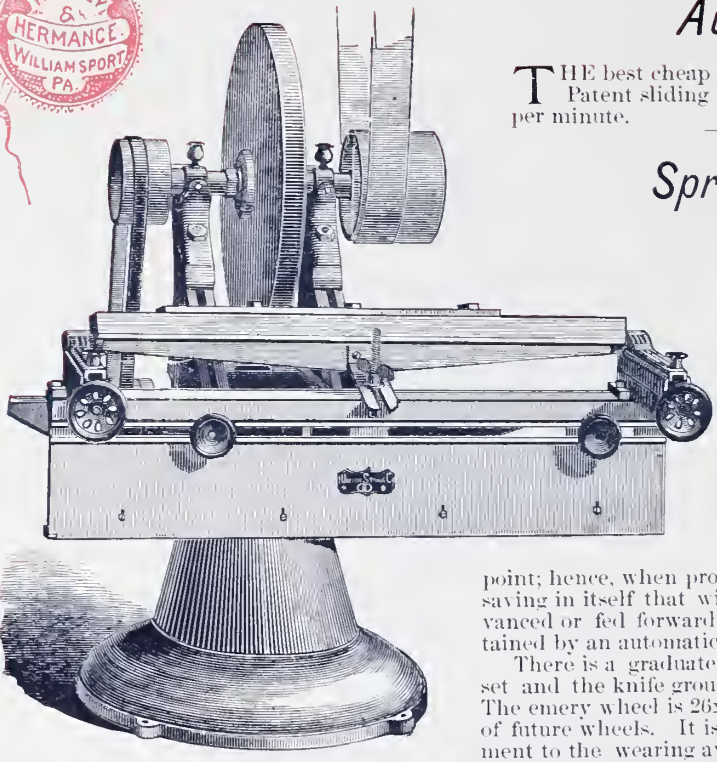
Every machine is tested before leaving our works, and each one is warranted to give satisfaction.

The stroke is 4 inches. Tight and loose pulley, 6-inch diameter by 2½ inch face, and should run 1,000 revolutions.



(Patented September 29th, 1879.)

Remember, we are connected with no other company making this class of machinery.



Automatic Knife Grinder.

THE best cheap machine in the market. Grinding wheel 26 in. diameter. Patent sliding boxes permit the wheel to be used up. Speed 230 revolutions per minute.

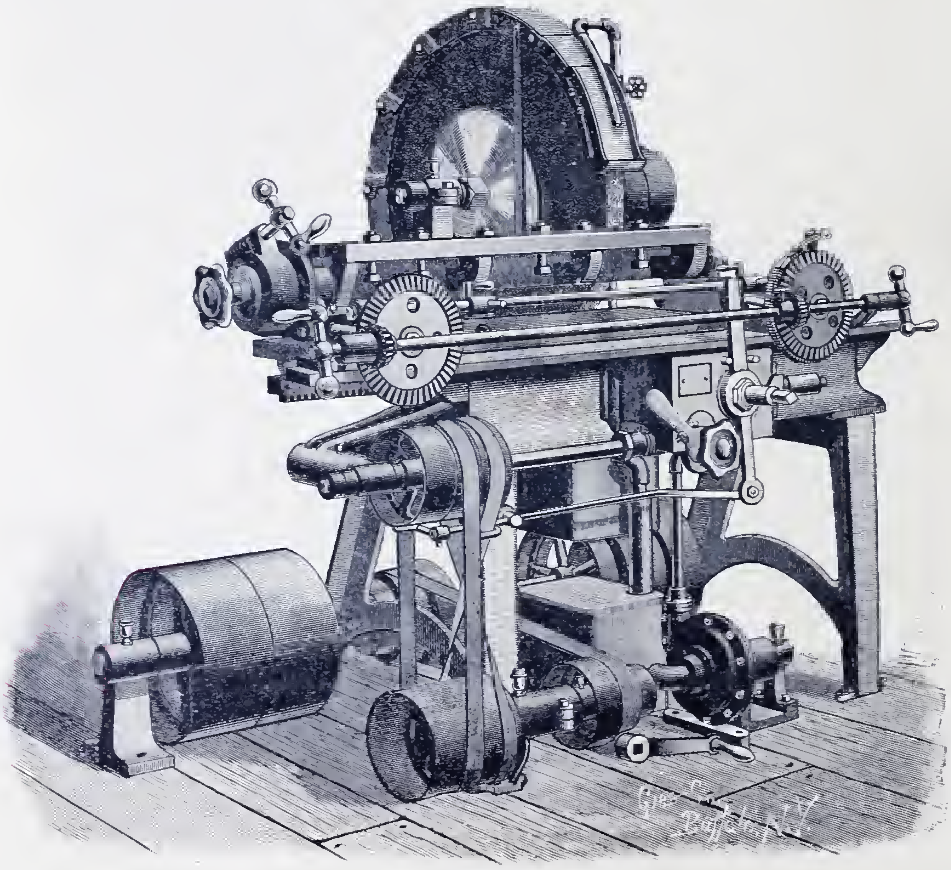
Springfield Automatic Knife Grinder.

THE only Emery Wheel Grinder using water to prevent heating and burning the knives.

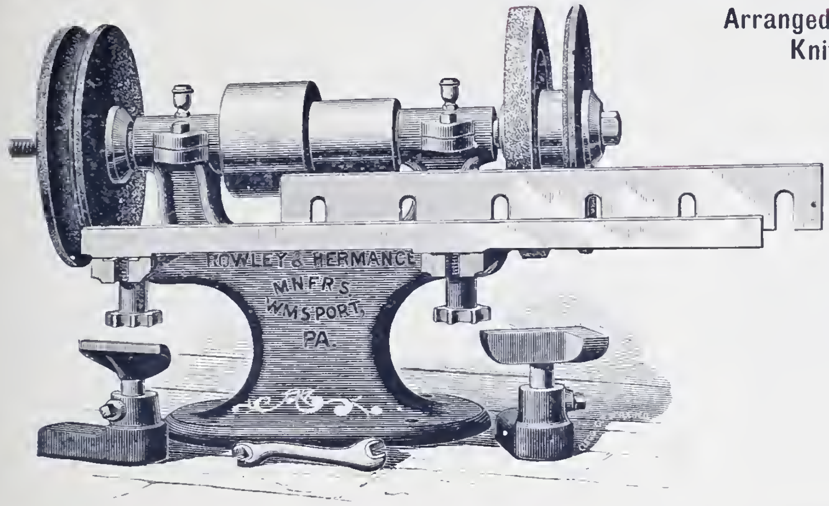
Once in motion requires no attention.

This machine is used for grinding the knives used on planing machines, trimming presses, paper machines, leather splitting machines, tobacco cutters, shears, etc. Will grind a knife in one-third the time needed on any other machine, as water prevents glazing, so wheel cuts faster. Being wet there is no emery dust and machine will last four times as long as a consequence. The automatic cross-feed can be adjusted so precisely that it will grind one six-thousandth part of an inch at each traverse of the carriage and as much more as desired, and it will stop feeding and grinding at any point; hence, when properly adjusted and set in motion, no attendant is required, a saving in itself that will soon pay for the machine. Both ends of the knife are advanced or fed forward equally at the same time, an advantage that can only be attained by an automatic cross-feed.

There is a graduated dial at the end of the knife bar so the bar can be quickly set and the knife ground to the same degree or bevel as when previously ground. The emery wheel is 26x1 1-2 inches, with 13 inch hole, making a saving in the cost of future wheels. It is hung in a swinging frame easily adjusted by a forward movement to the wearing away of the wheel, and cone pulleys increase the speed correspondingly. The tight and loose pulley on the countershaft is 12 inches diameter by 5 inches face, and should run 315 revolutions per minute, which will give the emery wheel a speed of about 360 revolutions per minute. This machine is guaranteed to do work satisfactorily on thirty days' trial from date of arrival.



DOUBLE END EMERY GRINDER.



Arranged to Carry Five Wheels, with Knife Grinding Attachment.

THE accompanying cut shows our Double End Emery Grinder, a heavy, substantial machine of entirely new design.

The arbor which is made of steel is mounted in long boxes to prevent rapid wear, and fitted with a cone pulley, which gives two changes of speed; one end is so arranged as to carry four 12-inch wheels of various thicknesses, and the other end one 12-inch wheel.

This machine is heavy and solid, being built in the very best manner. No planing mill or wood cutting establishment can afford to be without one.

Countershaft furnished if desired.

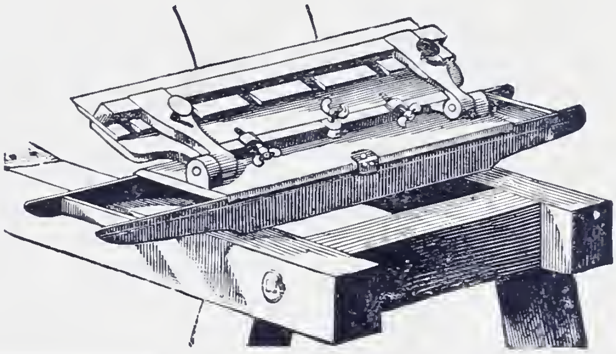
COMMON KNIFE GRINDING MACHINE.

CAN be attached to any grindstone frame. The knife to be ground is set between the jaws of the clamp, and fastened by hand wheels.

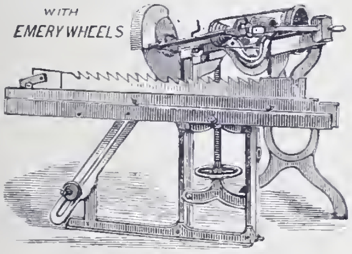
Any desired bevel can be obtained by the adjusting screw.

The carriage slides across the face of the stone, and grinds the knife perfectly straight.

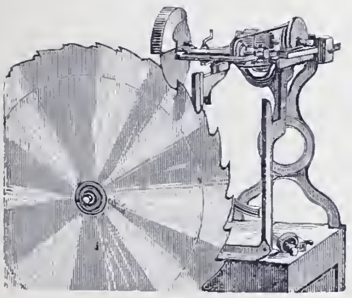
All screws are made of brass to avoid rust.



SAW SHARPENER WITH EMERY WHEELS



PATENTED JULY 1, 1870



CLIMAX SAW GUMMER AND FILER.

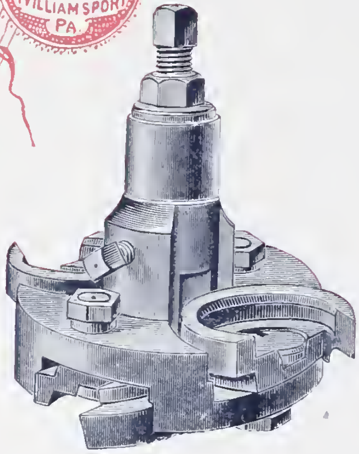
THIS machine, made with a cast iron frame, stands about 3 feet high, 3 feet wide in front, by 2½ feet long, weighs about 200 lbs., for circular saws only, and 240 lbs., where it includes the device for gang, muley, and drag saws.

What it will do.—It gums and files circular rip saws from 6 inches to 6 feet (on a sliding hub), and circular cut-offs, or butting saws, from 4 inches to 4 feet, and bevels the teeth; muley or gang saws, drag or long cross-cut saws, making all the teeth in each saw just alike.

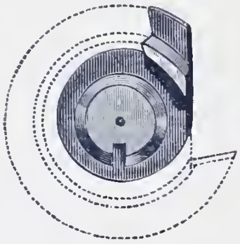
Advantages of this machine.—1st. The emery wheel used on this machine will never stretch a saw on the edge, or crook it, like the press gummer. 2d. By the occasional use of this machine, the saw is always in perfect order. 3d. By the use of this machine you will save 90 per cent. in files and labor of filing, and gain from 10 to 25 per cent. in quantity of lumber sawed. 4th. This machine will earn its cost in saving of files, and increased quantity of lumber, as often as 300,000 feet are sawed. 5th. The emery wheel, which goes with the machine, will last to saw two million feet of hard wood, or four million feet of pine. Therefore no man owning a saw mill can afford to do without one of these machines.

Directions.—Drive the four-inch pulley 1,200 per minute; this, when the round belt is on the slowest pulley, will give 1,800 revolutions to the emery wheel. When the emery wheel is worn to 9 inches, change the belt to middle pulley; when worn to six inches, change to the fastest motion. When using the machine never let the emery wheel stand still on the saw; keep it moving back and forth, to prevent the saw from getting too hot; should the teeth become blued, remove it by passing the emery wheel over it very lightly. After a little experience any man can gum and file any kind of mill saws without blueing the teeth, and by the occasional use of this machine will keep his saws in perfect order, at about one-tenth the usual cost of files and labor. Six files (just for pointing) will last to saw over a million feet of lumber. One emery wheel 12 x ½ inches is furnished with machine.

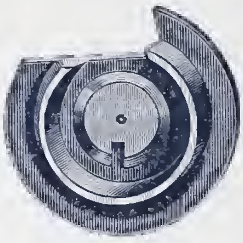
THE SHIMER MATCHER HEADS.



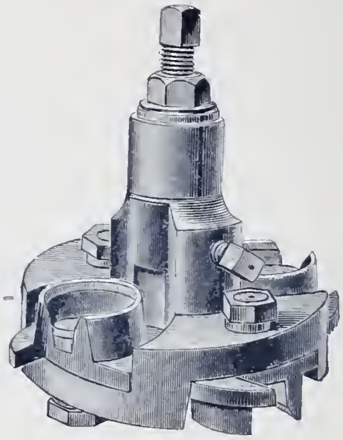
THE cheapest, the strongest, the most durable, and yet the lightest and easiest running matcher heads in the world. Upwards of 33,000 sold. The bits will make the same size tongue and groove until used up, and will work from ⅞-inch to 1½-inch lumber.



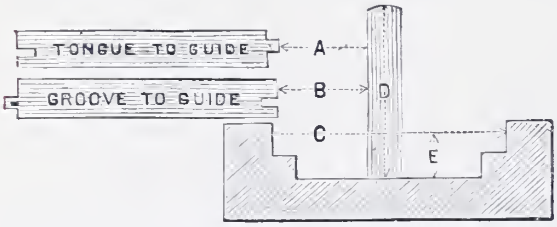
Bit Nearly Used Up.



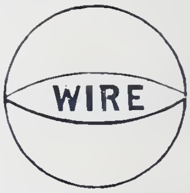
A New Bit, Pat. July 27, '75.



As to the durability of this tool, see above illustration of new bit and old bit, which, as it is used up, is brought around to occupy the same position continually, the average wear per bit ranging from 5 to 7 inches of tool-cutting edge, and with proper care each set will match several millions of feet. In ordering cutters for any of these heads, give the number you find stamped thereon. Each head is numbered.

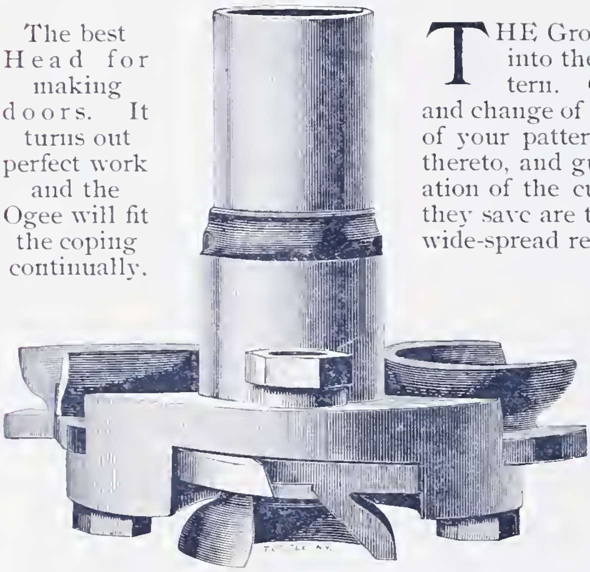


HOW TO ORDER FOR MATCHER.—This cut represents the spindle to the right; and please mention particularly if you make tongue or groove on right side as you stand feeding the machine. .... Send a wire the length of which will give the diameter of spindle (see diagram below. Now measure line D from top of box to top of spindle, inches; now measure line E from level of planer bed to the bottom of matcher plate, in which head runs, inches; now measure line C, the largest recess in matcher plate, in which the bits revolve, .. . inches; now measure line A, if tongue to guide, or line B if groove to guide, thus: Place a straight edge across the opening in the fence or guide, and take the measure between straight edge and edge of the spindle, inches. This measure, doubled and added to the length of wire (the diameter of spindles), will give the surfacing diameter of the head, or smallest cutting circle. This last measure determines the size, therefore be particular. Can you move the fence or guide, and how much? Give measure of solid part of head across the bottom, inches; and whenever you can, give maker's name of machine, for we may know also by that what size you need. If the right and left hand heads should differ in size, one from the other, give the measurements for both heads as above. In ordering new bits for matcher heads, give the number of the heads. In ordering double ceiling heads, ship lap heads, jointer heads, &c., give the number of the matcher heads, if they are wanted to fit the same machine



Door Ogee and Grooving Head.

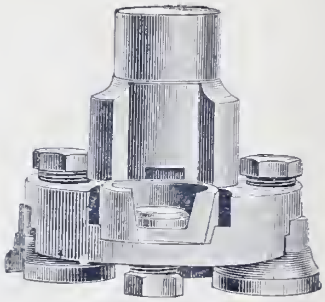
The best Head for making doors. It turns out perfect work and the Ogee will fit the coping continually.



THE Grooving Cutters operate with side clearance, and the Ogee is turned into the outer circle of the cutter, thus maintaining a uniformity of pattern. One set of cutters will work from 1¼ to 1¾ with uniform Ogee and change of groove from 5-16 to ½ inch wide. Send with order a cross section of your pattern, about one inch long, and the cutters will be carefully shaped thereto, and guaranteed not to tear under the fastest speed. The alternate operation of the cutters, their light and easy running and the labor and material they save are the special points of value which serve to establish them in their wide-spread reputation.

Sash Head.

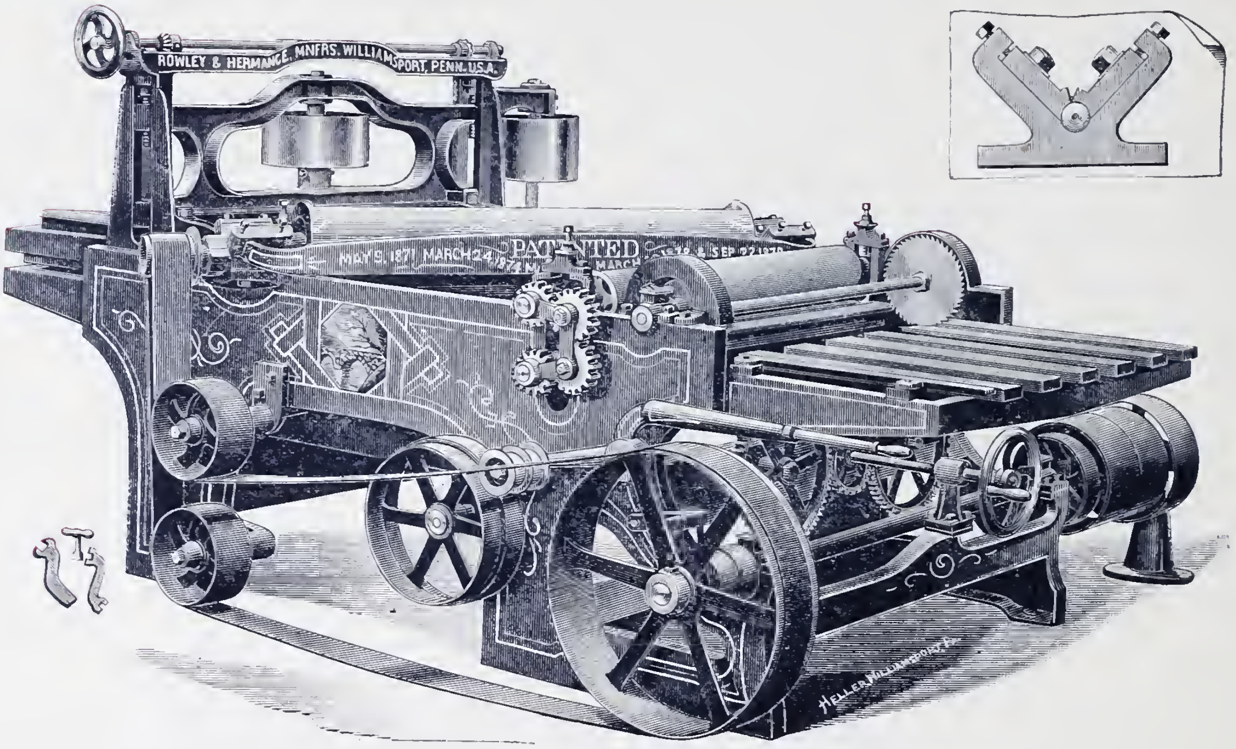
This cut represents the Improved Sash Head, which operates alike with clearance to the cutters, but upon tongue-head principle, while the Door Ogee Head works upon the groove-head principle; therefore sash and door cutters will not work upon the same head.



HOW TO ORDER DOOR OR SASH HEADS FOR MOULDER.—File a wire, as shown on small diagram, to fit spindle or hole in head. Next, send a piece of door stile into your machine, and stop it under the spindle. Measure from under edge of spindle to jointed edge of board, same as line B of larger diagram, and give us the length of that line in inches .. .. What is the length of line D; that is, how long is the spindle, inches. How long shall we make the head you order, inches. Is it fastened with nut on end of spindle, or by set screw in the head . . . Let us have measure of head you are using on the machine, across the bottom inches. This measure we want so that we can compare it with what you give us above. What is your machine called—has it a name or a number, and who built it For Sash Head, follow same general rules for measurement as given for Door Head above.

MOULDING, DOOR, SASH AND BLIND DEPARTMENT.

Norris Patent Improved Diagonal Planer and Polishing Machine.


ROWLEY & HERMANCE, MNFRS. WILLIAMSPORT, PENN. U.S.A.
PATENTED
MAY 9, 1871 MARCH 24, 1874
HELLER WILLIAMSPORT PA

Capacity 500 to 600 Doors in 10 Hours.

THIS machine will trim the wedges, plane and sand paper doors, sash, blinds, shutters, base, door panels, caseing, furniture, &c., &c., doing as much and better quality of work than 25 men can do by hand, or from four to five times as much work as can be done on any other machine.

It is equally valuable in small as well as large shops, as the saving is in the same proportion. One man only operates it; 3 to 6 horse power runs it. All articles have a perfect uniformity of thickness and of surface; there is no clipping out of cross grained places or splitting of corners, or dubbing off of ends.

The planer head is placed at an angle of 45 degrees, which gives a uniformity of cut on stiles and rails of doors, sash, and other work having grain of wood at different angles, which insures a perfectly smooth surface, regardless of knots or cross-grained places in material being worked. The knives on this head are ordinary straight planer knives. The polishing disc is sufficient diameter to polish as wide as the head will plane. The sand paper is fastened by means of steel segment frames and can be cut without waste from the ordinary size of roll sand paper, which can be quickly and easily renewed.

The planer head and polishing disc finishes the top surface of the work, so that the operator can at all times examine the quality of the work as it passes through the machine. This cannot be done on any other polishing machine made. The finished appearance of the door rails and stiles, and other like work, is the same, while all machines having a sand drum or cylinder, finish the stiles and muntins with the grain, and the rails across the grain, giving a very different appearance to the work when completed. This is a very important feature.

Sash and doors can be finished on this machine without knocking out or splitting the bars and muntins, which cannot be done on any polishing machine having a sand drum or cylinder.

This has been amply proven by the experience of many sash and door manufacturers, who have had to throw out the cylinder sand polishing machine. It planes and polishes, or planes or polishes only, as may be desired, from 3/8 inch to 3 inches thick, at the rate of 16 feet per minute on the slow feed, to 20 feet per minute on the fast feed. The bed raises and lowers on inclines, and can be changed for different thicknesses of work in one minute.

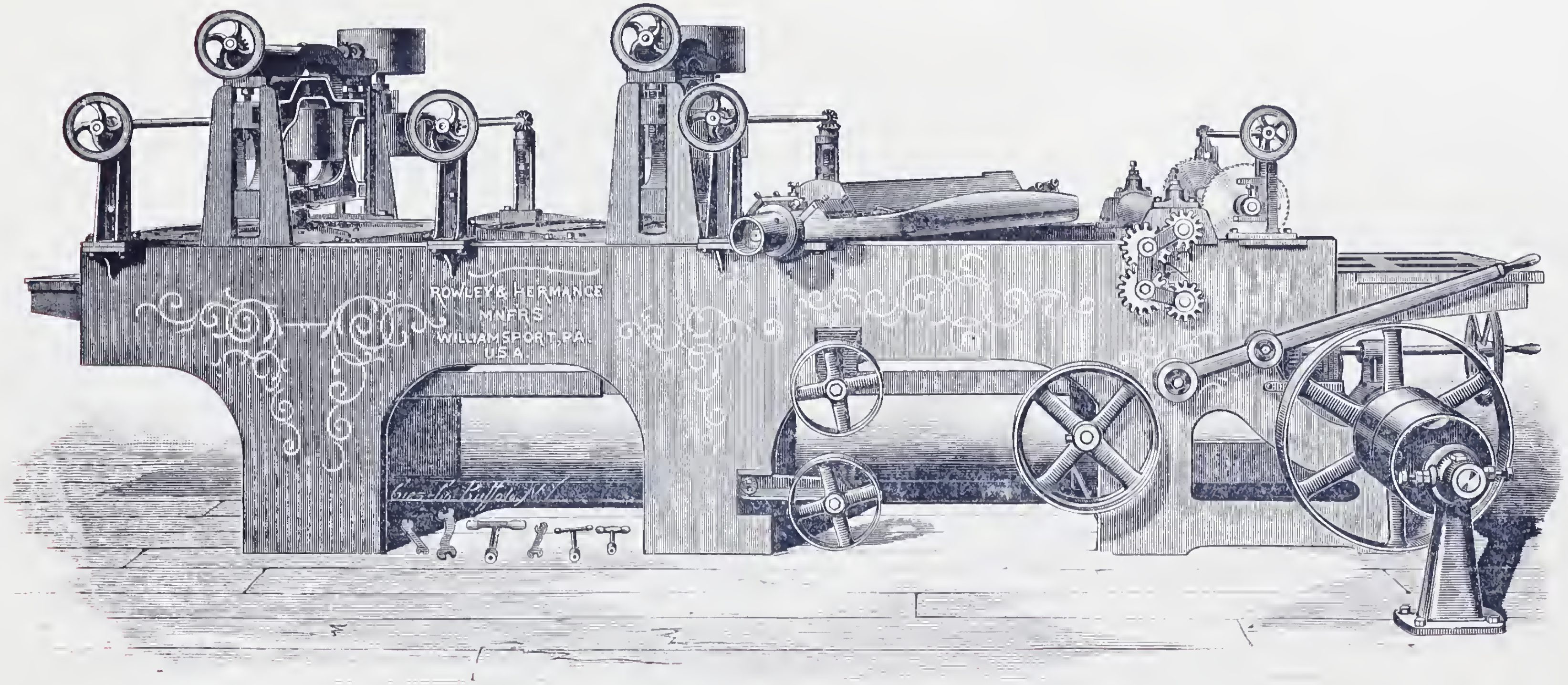
If desired, a cutter head can be added for jointing the edges.

Size, 10 feet long by 6½ feet wide; weight, from 3,500 to 4,000 pounds.

Tight and loose pulleys, 12 inches diameter by 7 inches face; should run 650 revolutions per minute.

We are the only makers of this machine for the United States.

Norris Diagonal Planer, with Double Polishing Discs.


ROWLEY & HERMANCE
MNFRS
WILLIAMSPORT, PA.
U.S.A.

THE Machine represented by above cut is similar to the one on the preceding page, excepting that it is provided with two Polishing Discs, instead of one, which makes it the most perfect planing and polishing machine in the market.

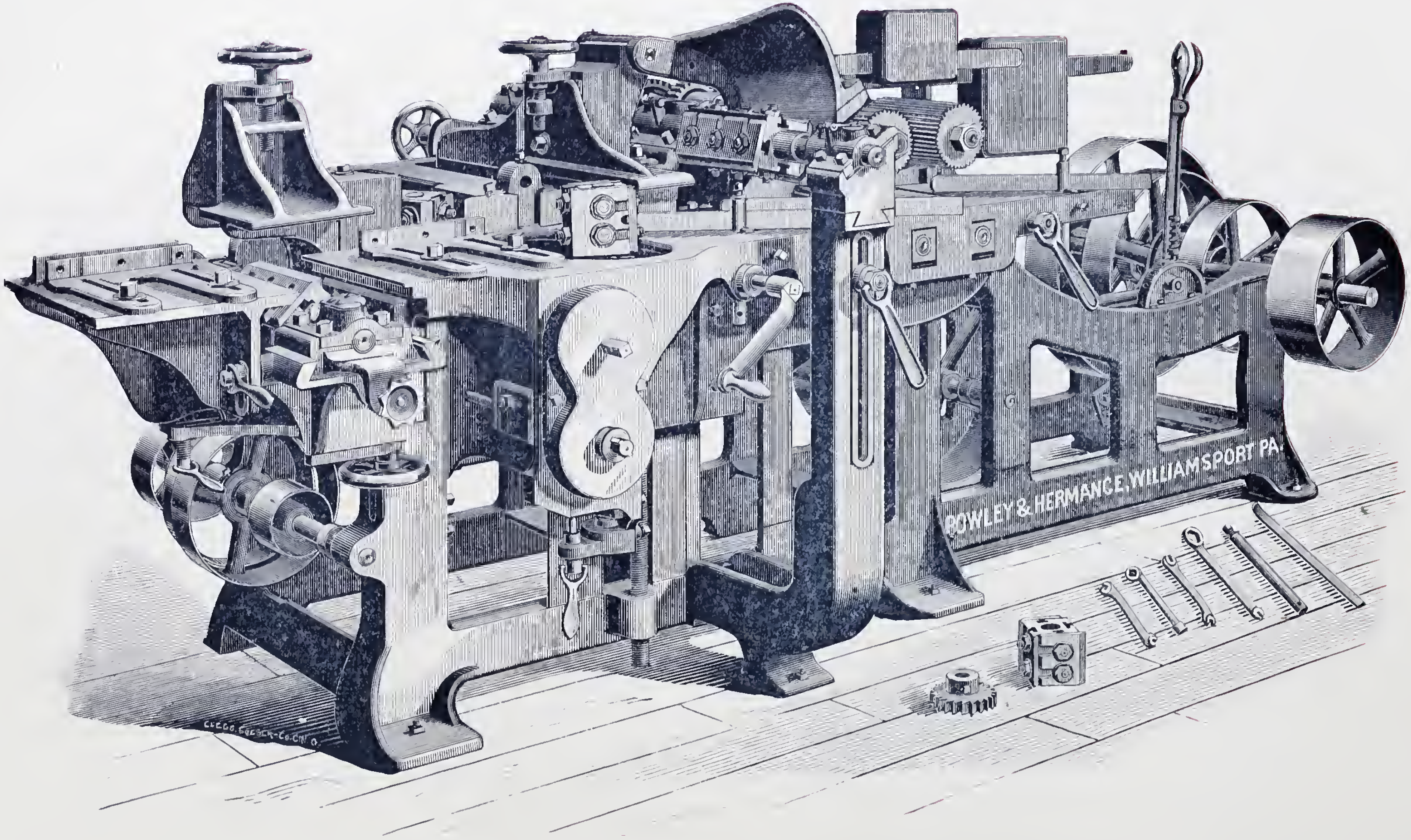
The first disc is intended to carry coarse, and the second one fine sand-paper, the first being used to remove the marks of knives and produce a perfect surface, and the second disc, with fine paper, will produce a high degree of finish.

This machine is invaluable to manufacturers of wood carpet and any hard wood work where the planing and polishing must be done parallel with and across the grain, as in doors, &c., as well as on all kinds of soft wood doors, sash, blinds, panels, &c., &c.

The machine is provided with guides which extend the entire length of it. The discs are raised and lowered by means of hand wheels placed in convenient position. Built in two sizes, to plane and polish 36 inches wide and 42 inches wide.

Tight and loose pulleys 14 inches diameter by 8 inches face, and should run 650 revolutions per minute.

EXTRA HEAVY IMPROVED TEN-INCH FOUR-SIDED MOULDER.


ROWLEY & HERMANCE, WILLIAMSPORT PA.

WITH OUTSIDE BEARING.

Improved Ten-Inch Four-Sided Moulder.

WE offer this machine as the heaviest, strongest and most durable machine of its class in market. It is adapted to the heaviest as well as to the finest grades of work, and a high degree of smoothness can be obtained.

The frame is heavy, and is cast in one piece, making it as rigid and steady as an inside moulder, and has every convenience for quick changes, all parts being easily accessible.

It has a heavy and solid outside bearing for the outer end of top cutter head shaft, which is bolted to frame at bottom, with top secured by heavy bolts passing through table and frame.

The feed works are powerful and positive. It has four feed rolls, five inches diameter, two above and two below. The gearing which drives the lower rolls is not affected by lowering the table to the full capacity of the machine. The feed works are started and stopped with a binder.

The arbors are of steel and unusually heavy. The boxes supporting the main arbor are so arranged that the wear caused by the belt forcing the arbor towards the countershaft is confined to the bottom of the box so that the wear can be readily taken out by tightening the caps.

The belts which run the side heads do not pull on the caps that support them.

The bottom and both side heads are adjustable both horizontally and vertically.

There is ample space about all the heads to admit of using bits for any kind of work. We have given this feature special attention, as it is very necessary, in doing certain kinds of work, to have abundant space for long bits to revolve.

This is a feature which every purchaser should examine when selecting a moulder, as the want of space about heads forms a very serious objection, and one not easily overcome.

By means of a screw the spindle carrying the outside head can be set at an angle, and the head may then be moved out or in without changing the angle.

For raising and lowering the table a convenient device is provided, and the table is so securely clamped to the frame that it is as solid as the frame itself.

It is provided with adjustable chip-breakers on both sides of the bottom head. It also has an adjustable chip-breaker for the inside head. It will dress ten inches wide by four inches thick on four sides, and the table will lower twelve inches.

Each machine is furnished with five heads and five sets of plain cutters and one extra spur feed; also with necessary wrenches.

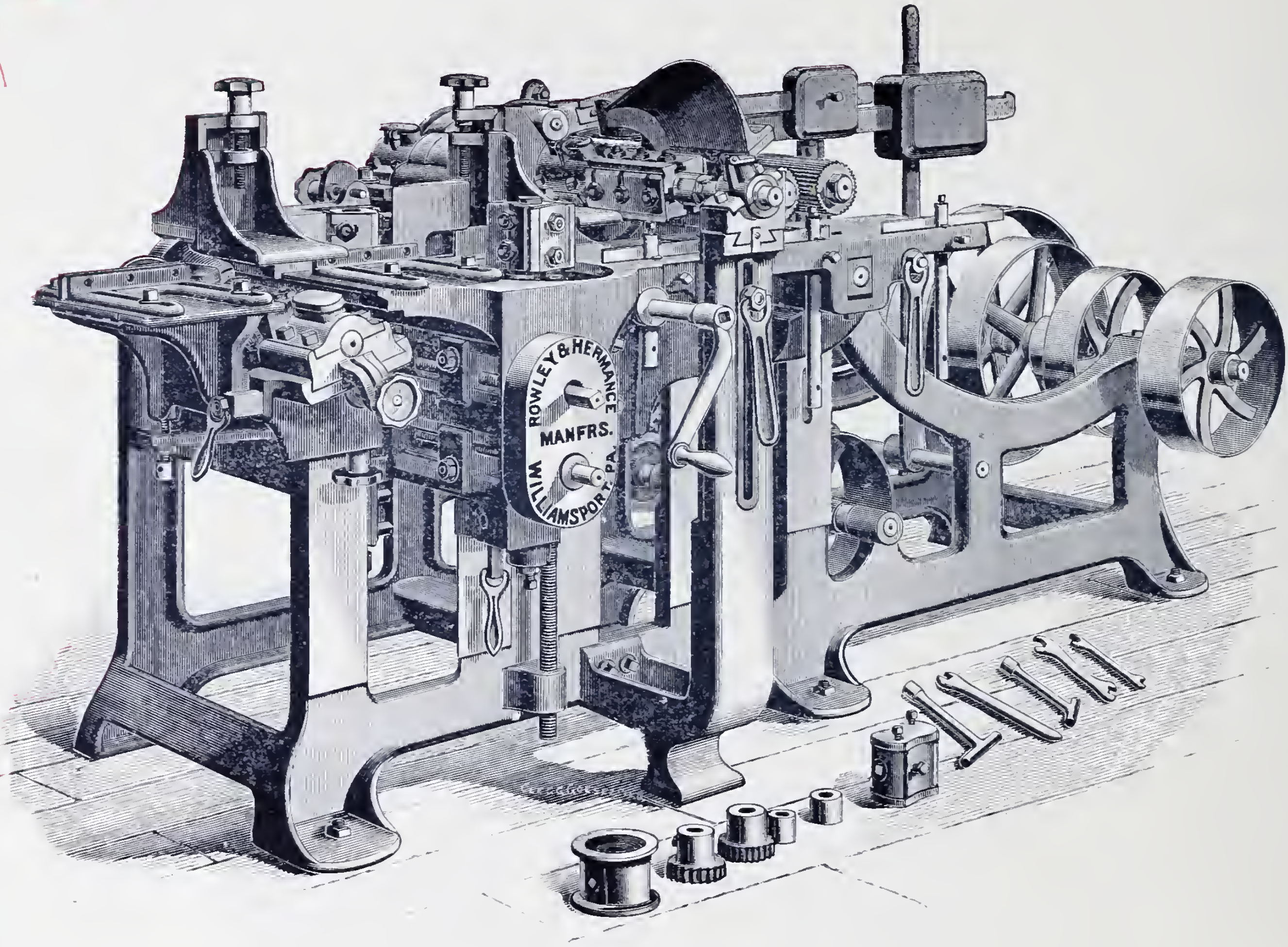
The tight and loose pulleys are 12 inch diameter by 7 inch face, and should run 850 revolutions per minute.

Weight of 10-inch four-sided moulder, 4,000 pounds.

IMPROVED NINE-INCH FOUR-SIDED MOULDER.

We build a nine-inch moulder from patterns similar to the ten-inch moulder, which has all the advantages above described. It will dress four sides nine inches wide by four inches thick, and the table will lower twelve inches. Weight, 3,600 pounds.

Seven-Inch Four-Sided Moulder.



THIS cut represents our Seven-Inch Four-Sided Moulder, of entirely new design and many valuable improvements. The frame is cast in one piece and is so designed as to give it the greatest strength and solidity. The boxes are long, lined with best babbitt metal, and journals are accurately fitted to them to insure smooth work. It is much heavier than any other machine of the same capacity built by other makers. All the working parts may be easily and quickly adjusted, are not complicated and consequently not liable to get out of order and cause trouble and delay.

The table is deep and firmly gibbed to the frame and is also secured by two bolts fitted with swivel wrenches. The top arbor is provided with an outside bearing, which extends to the floor and forms an additional support. The heads are 4¾ in. diameter, four slots in each. The side heads have a horizontal, vertical and angular adjustment. The table may be lowered 12 inches by means of a crank on front of table in a very convenient place, as shown on cut. There are two top feed rolls 3½ in. diameter and one under roll 5 in. diameter, all being driven by an entirely new and complete system of gearing, which insures a strong, steady feed at all times, the bottom feed roll being driven equally well at any depth. The machine is unusually wide, which allows plenty of space for belts, thus preventing their striking any part of the machine and being destroyed and causing annoyance, as is so often the case in moulding machines. The arbors are all made of steel and carefully finished, boxes for same being constructed so as to receive wear in the bottom of the box and not in the sides. The bonnet over the top head may be swung entirely clear of the knives, giving ample room to adjust knives, &c.

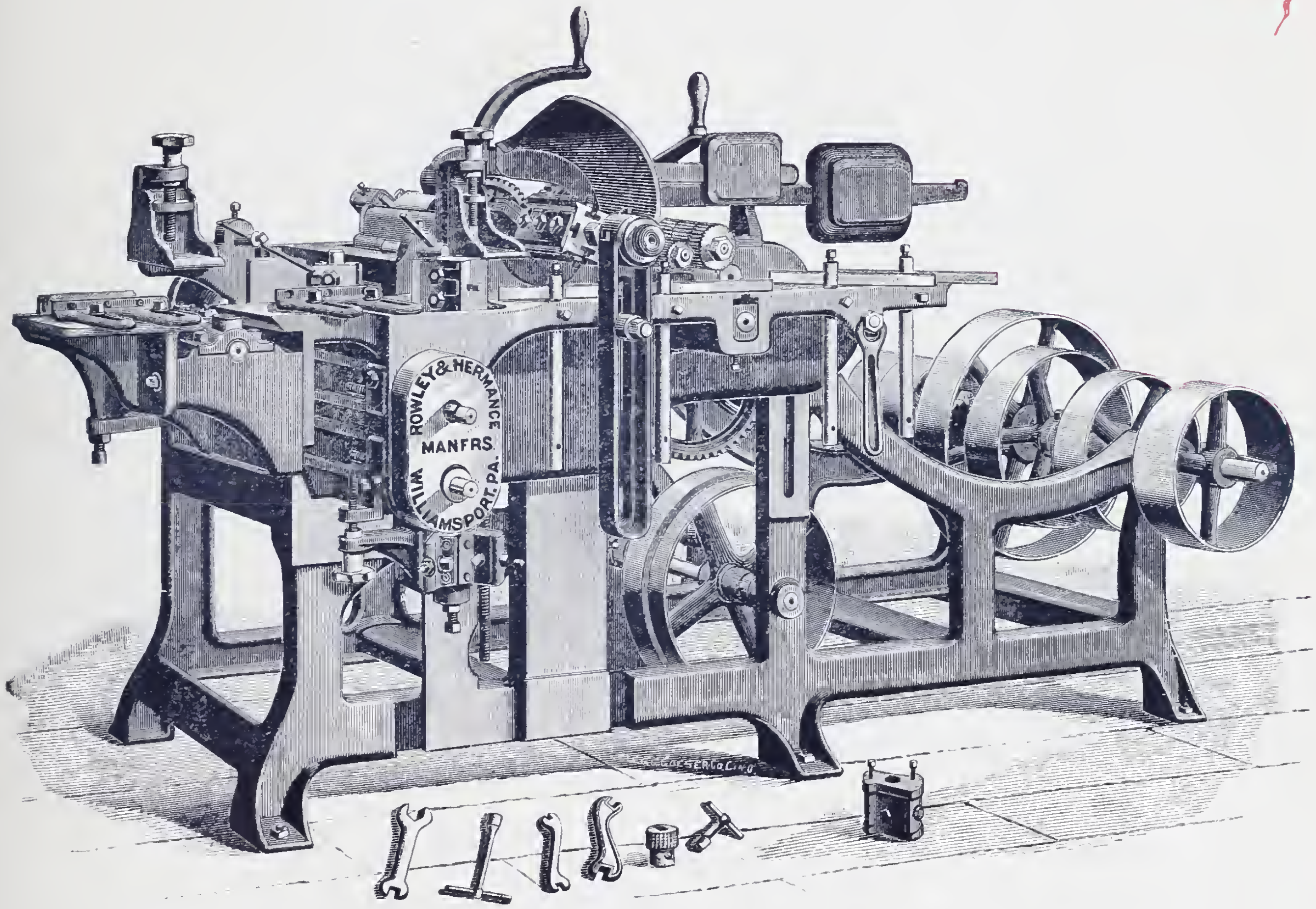
There is an unusually large amount of space about each head which admits of setting the knives out without their coming in contact with surrounding parts of machine, which, as every mill man knows, is very essential but often overlooked in the planning of these machines.

The tight and loose pulleys on countershaft are 10 x 4½ in., and should run 900 revolutions per minute. The machine has three rates of feed, viz: 30, 45 and 60 lineal feet per minute.

We furnish with each machine one set straight knives for each of the four heads, one extra cap head and all the necessary wrenches. Built either one, two, three or four-sided.

New Pattern Six-Inch Four-Sided Moulder,

WITH OUTSIDE BEARING.



THE Machine represented by this cut is entirely new in design, and has many valuable improvements; in fact, we have used every possible means to overcome faults in other moulders and make this the best six-inch machine in the market. The frame is one solid casting, so designed as to fully withstand all stress occasioned by belts and working parts, and no part of the machine is contracted or crowded, there being ample space for belts, and heads carrying long knives, and at the same time allowing all parts to be easily and quickly adjusted, there being no hidden screws or nuts.

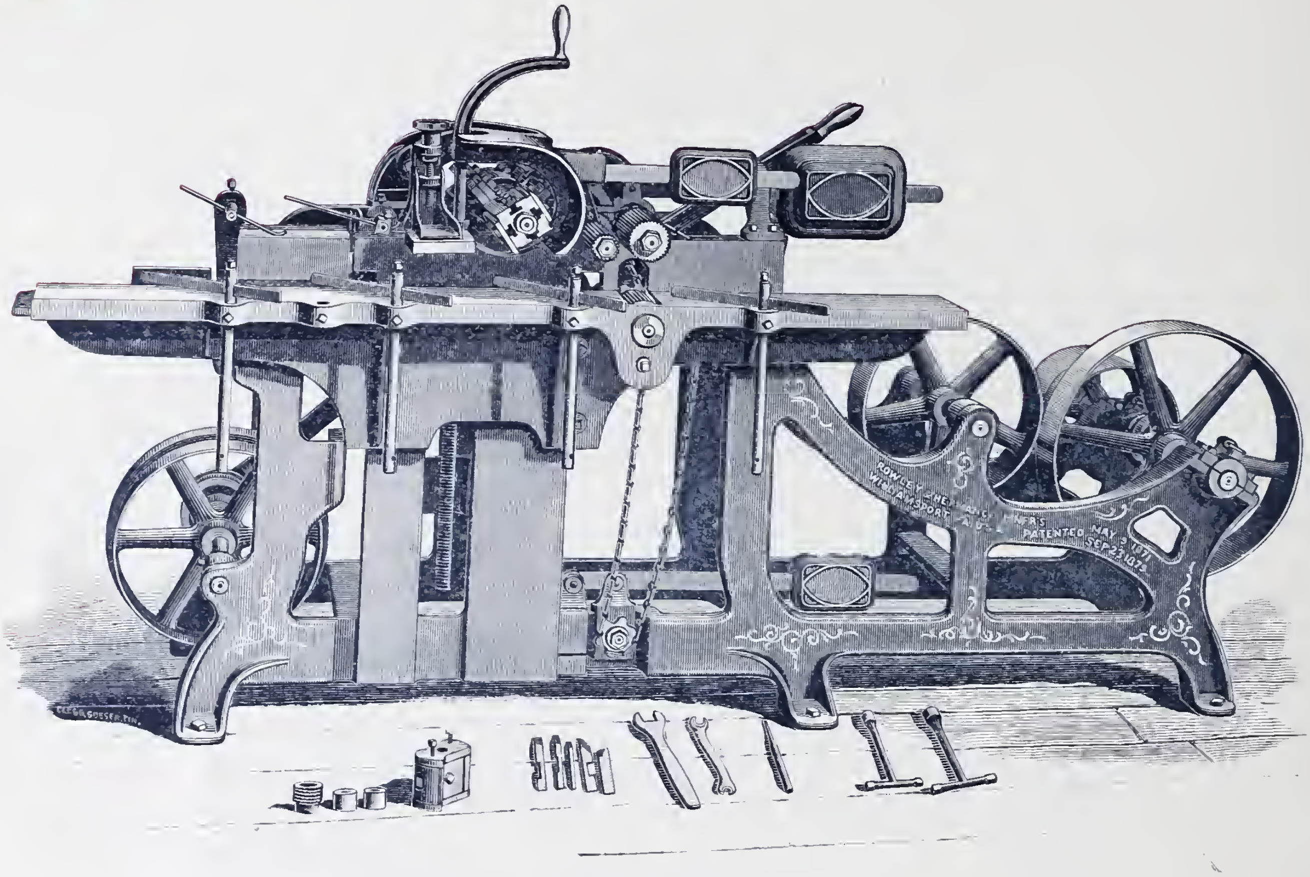
It is provided with two upper and one lower feed rolls, all driven by a system of gearing which has no superior, the motion being steady and strong regardless of the position of the table, there being no occasion to disconnect the gear when the table is lowered to the full capacity of the machine. It is simple and not liable to get out of order, and is controlled by a tightener placed in a convenient position.

The arbors are of large diameter, running in long boxes provided with large oil space. The top and bottom heads may be adjusted laterally, and the side heads have a vertical and angular adjustment. The top rolls and hood over top head are weighted, and heads are provided with chip breakers and pressure shoes.

The table may be raised and lowered to a depth of 14 inches by means of a crank over the table, as shown in cut. We furnish one top head, four-slotted, one bottom and two side heads, two-slotted, all of steel, and one extra loose cap head, one extra spur feed roll, and necessary wrenches, with each Four-Sided Machine.

Every machine is fully tested before leaving our works, and guaranteed to give satisfaction. Tight and loose pulleys are 10 inches diameter by 4½ inches face, and should run 900 revolutions per minute.

Six-Inch One-Sided Moulder, without Outside Bearing.



WEIGHT, 1200 POUNDS.

ABOVE machine embodies all the improvements of our 6-inch Four-Sided Moulder, except that it has no outside bearing. It is used principally for sticking door stiles, door rails, sash, blinds, and any work requiring to be dressed on one side.

We call especial attention to this machine, as being the strongest feeding door sticker in the market. The under roll is so geared that it feeds equally strong when the table is lowered to 14 inches as when working thin stuff. It has two upper geared feed rolls, one weighted and the other held firmly by springs, making in all three geared feed rolls.

A strong feed is an essential point in a moulding or sticking machine, and for this reason we claim that this machine is the best 6-inch sticker in market.

The frame is heavy and strong, being cast in one solid piece. The table is raised and lowered by crank on top of machine. The arbors are of steel, running in our Patent "Common Sense" Journal Boxes, which are made in three parts, taking up side as well as top motion, thereby allowing this machine to do smoother work than any other machine made.

The heads are also of steel. The top head is slotted four sides. The extra head that is furnished with this machine is a loose cap head. The table is of unusual length, designed especially for long stuff, and is gibbed to the frame, the gibs extending the whole depth of the table, and by tightening one screw, is held rigidly at any desired height.

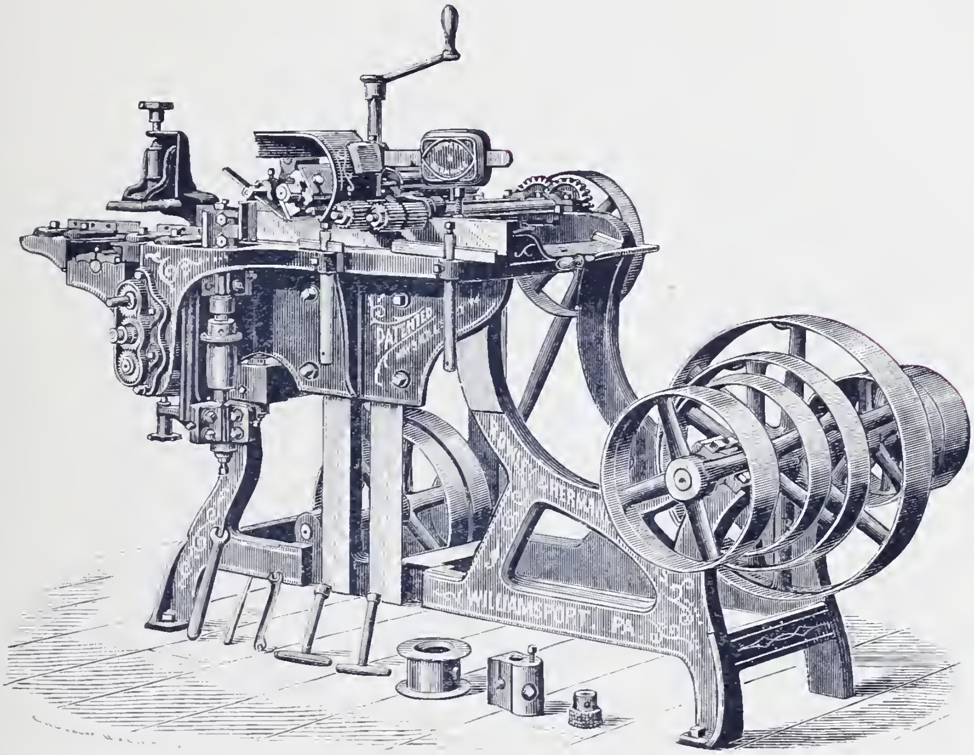
The hood is adjustable to and from the cutters, to allow long knives to be used on head, and being weighted, acts as a combined pressure bar and chip breaker. It can be thrown entirely out of the way to give the operator free access to the cutter head.

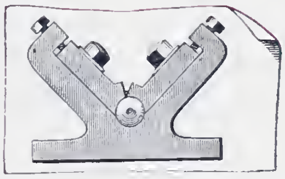
It has four rates of feed. There is a binder for feed roll instead of a clutch, giving operator control over his work.

We furnish with each one-sided machine one four-slotted head, with steel bolts and two plain cutters, one loose cap head and set of O. G. door cutters for same, one extra spur feed roll, and four wrenches.

Tight and loose pulleys 10 in. diameter by 4½ in. face, and should make 900 revolutions.

FOUR-INCH FOUR-SIDED MOULDER.





THIS illustration represents our Four-Inch Four-Sided Moulding Machine, for working stock up to four inches wide by three inches thick, and will cut any moulding within these dimensions. It is also used for grooving door stiles and rails and for finishing sash, blinds, furniture, trunk slats and other small work. The bed, or table, is raised or lowered by a single screw, and can be lowered 17 inches below the top cutter head.

It is strong and substantial. The frame is cast in one piece; the arbors are steel, and run in our patent "Common Sense" Journal Box, (see cut,) which is made in three parts, taking up side as well as top wear, thereby allowing this machine to do smoother work than any other machine made. The heads are also made of steel, the top head being slotted four sides; the two side and the bottom head are slotted two sides. We also furnish one extra loose cap head with each machine.

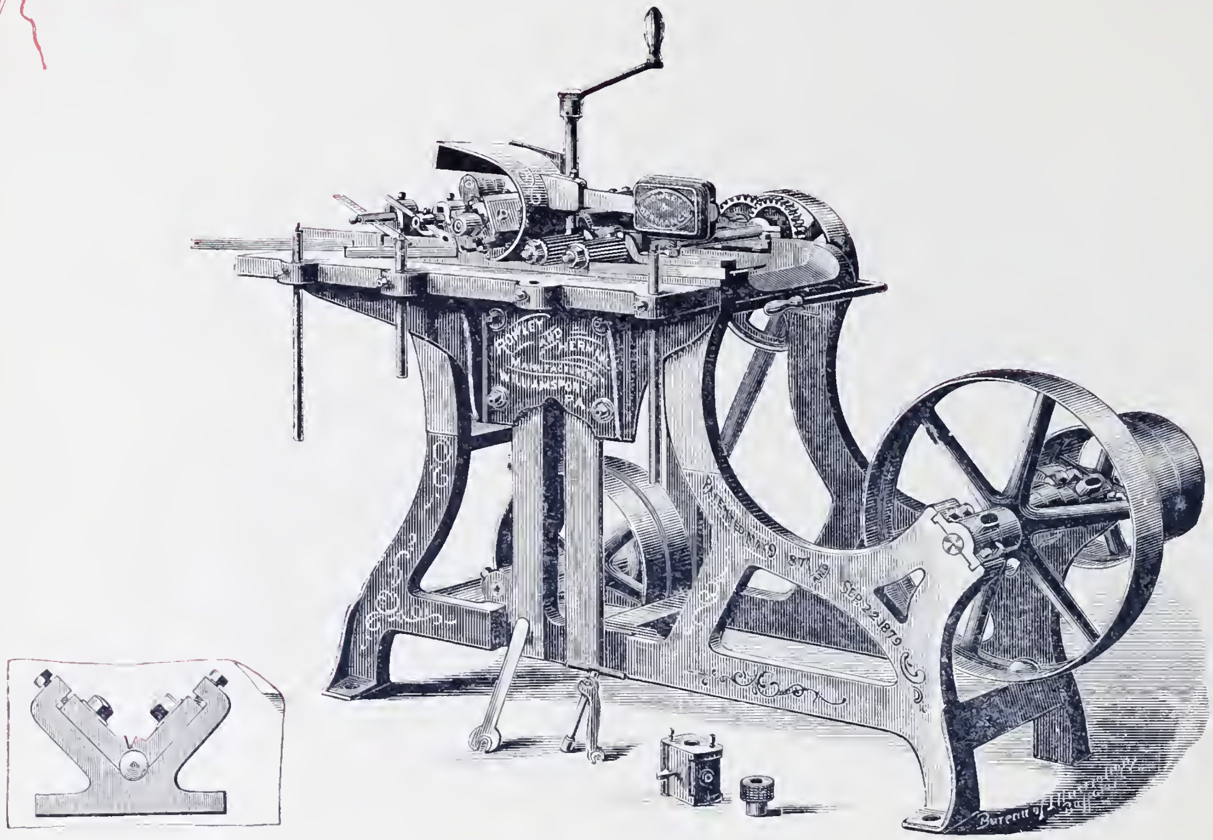
The top headstock has a lateral movement, with a hand wheel, by which it can be adjusted accurately for sticking sash, moulding, &c. By a novel device the outside headstock can be set to any angle and fastened, and then be moved out and in or up and down accurately, without changing the angle. This is a very important feature in working mouldings with beveled edges.

It has two steel feed rolls of large diameter, strongly geared, making a powerful feed. There are four rates of feed, for light and heavy work. We furnish with each machine one set of straight cutters for each of the four heads on machine, and one set of sash bits for the loose cap head, one spur feed roll and three wrenches. We also build this machine either one, two or three sides, as desired.

Each machine is tested before shipping and warranted to give satisfaction.

Tight and loose pulleys, 10 in. diameter by 4½ in. face, and should run 900 revolutions per minute.

FOUR-INCH ONE-SIDED MOULDER.



THE above cut represents our Four-Inch One-Sided Moulder for sticking sash, doors, blinds, &c. It is a strong, durable machine. The frame is cast in one piece. The bed is raised and lowered by a single screw, and can be run down 17 inches below the top cutter head.

The arbors are of steel, running in our patent three part Common Sense Journal Box, (see cut), which takes up side and top motion or wear, thereby allowing this machine to do smoother work than any other machine made.

The head on arbor is steel—four slotted. We also furnish one extra loose cap head with each machine. The head-stock has a lateral movement, with a hand wheel, by which it can be adjusted accurately for sticking sash, grooving doors, &c.

It has two steel feed rolls of large diameter, strongly geared, making a powerful feed.

There are two changes of feed, for light and heavy work.

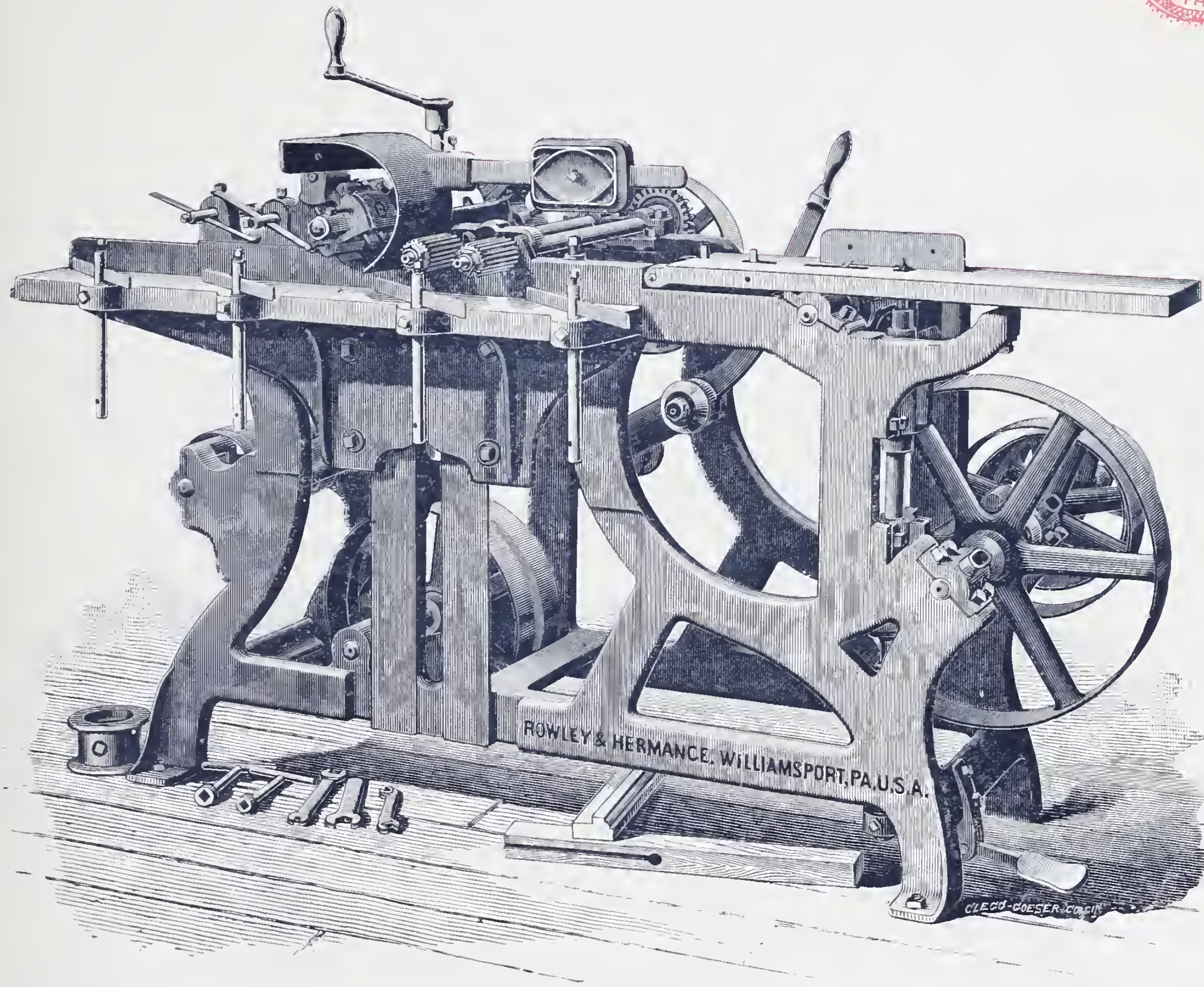
We furnish with each machine one set of straight cutters for the head on arbor, one set sash cutters for the loose cap head, one spur feed roll and three wrenches.

We also build this machine with two, three or four sides, as desired.

Each machine is tested before leaving our works and is warranted to give satisfaction.

Tight and loose pulleys, 10 inches diameter by 4½ face, and should run 900 revolutions.

SASH STICKING MACHINE.


ROWLEY & HERMANCE. WILLIAMSPORT, PA. U.S.A.
CLEGG-COESER CO. CIN.

PATENTED.

WITH PLOWING AND BORING ATTACHMENT.

WEIGHT, 1000 POUNDS.

WE here introduce the first and only machine that will plow and bore sash stiles at the same time that they are being run through the sticker.

The operator places the stiles on the grooving table and pushes it forward against the first stop, then by movement of the foot treadle the bit bores the stiles, and by disengaging the foot the bit drops down out of the way and the stile is pushed forward to the second stop, completing the groove, as is shown on the sample of work at base of machine. The stile is then placed under the feed rolls and run through the machine. The plowing and boring is quickly done and a boy will operate it, having ample time to plow and bore a short stile while another is being fed through machine. Thus the plowing and boring of sash stiles does not cost one cent to the manufacturer who uses this machine.

Since above cut was made the boring and grooving table has been changed so as to bore the large hole at an angle, so the knot in the cord will draw toward the bottom of the hole when the weight is attached.

The machine can be used as sash, door, or blind sticker, as the attachment is not in the way. The bed drops 16 inches.

The arbors are of steel and run in our patent three part "common sense" journal box.

We furnish with each machine one cap head on arbor, one set sash cutters for same, one bit ⅞ inch diameter, one set grooving cutters and necessary wrenches. Each machine is tested at our works and fully warranted.

Tight and loose pulleys 10 inches diameter by 4½ inches face, and should run 900 revolutions.

Paine Lumber Co., Oshkosh Wis., use three of these machines.

NEW STYLE No. 2 POWER MORTISER.

WITH

BORING ATTACHMENT, CLAMP TABLE AND RACK AND PINION FEED.

THIS machine is principally used on hard wood, and the heavier classes of building material.

It has no superior for furniture, wagon, and agricultural implement factories.

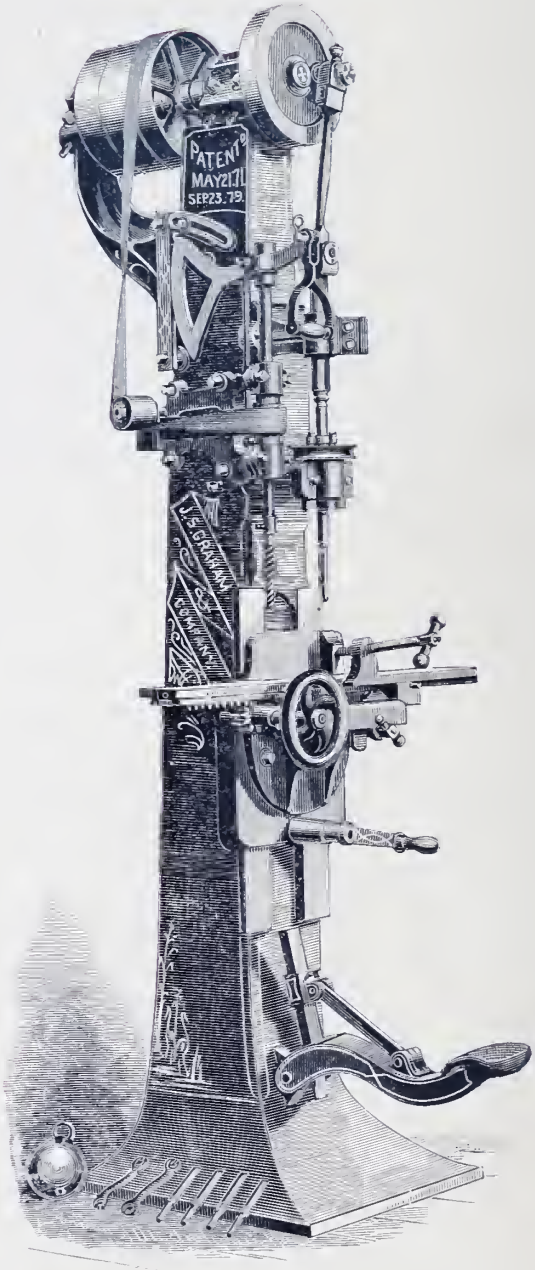
The frame is cast on one solid piece, and extends over the crank shaft, while the caps are placed below, thus the entire strain, or jar, comes upon the frame instead of on the caps of the boxes, as in all other mortisers made. This is a feature worthy of attention.

The clamp table is simple, durable, and effective. The piece to be bored or mortised is clamped, and moved forward by the hand wheel which moves the bed, and bored, and then run under the chisel and mortised, without releasing it from its position.

The boring attachment, which has been improved since this cut was made, is seldom used except on hard wood, and can be used or not at will.

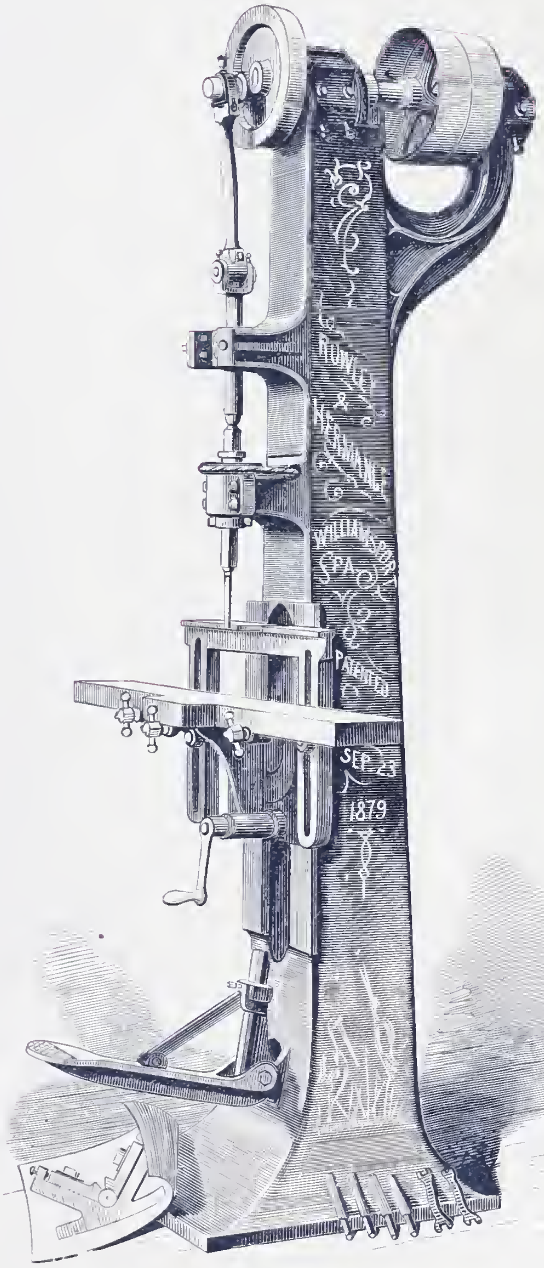
The table is arranged so as to allow of mortising on an angle and can be adjusted in every direction. The table will take in a piece 8 inches wide. It is provided with the belt friction reverse, which reverses the chisel instantaneously, whether working or at rest. This reverse is acknowledged to be the best in use.

We furnish with each machine five mortising chisels, ¼, ⅜, ½, ⅝ and ¾ inches. Tight and loose pulleys 12 inches diameter by 3-inch face, and should run ~~450~~ 600 revolutions per minute.



NEW STYLE No. 2 POWER MORTISER.

WEIGHT, 1300 POUNDS.



ANNEXED engraving shows a Power Mortiser for mortising doors, sash, blinds, furniture, &c. The frame is cast in one solid piece, and the machine is constructed in the most substantial manner, and can be run at a higher rate of speed than other machines for doing the same work.

In all other mortising machines the set screws in the cap of the box on crank shaft have to withstand the full effects of the blow of the chisel, thus bringing all the strain upon the caps of the box, causing a great deal of wear and lost motion. In the machine illustrated the solid iron frame is extended over crank shaft, and the patent sliding caps—shown separately in the small detail view—are placed beneath, and the wear can be taken up by simply setting up the caps. This is an important improvement and will be readily understood. The machine also has the patent three-part box on the vertical spindle.

The outside or rear bearing of countershaft is a heavy, cast iron arm fitted carefully in a planed seat, and by means of a set screw, the back end of shaft may be raised or lowered so as to keep the shaft at right angles with the spindle, and is held rigidly in place by four heavy bolts, which allows the babbitt in the top box to be entirely worn out before rebabbitting.

The side wear of the quill box is taking up from the side, precisely where the wear occurs. This is an improvement over any other mortiser made.

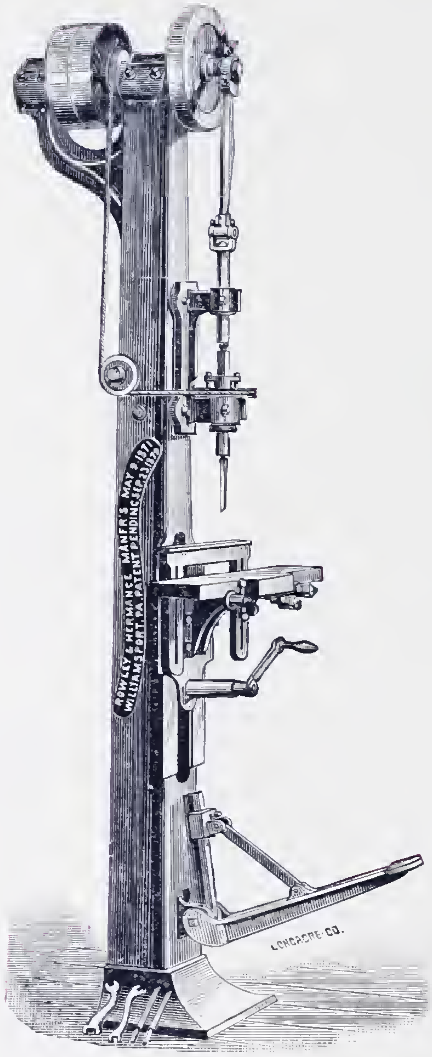
The bed drops 12 inches, and can be used for straight mortising in the usual manner, and is capable of being tilted to any angle for radial mortising. It is provided with the belt friction reverse, which reverses the chisel instantaneously, whether working or at rest. This reverse motion is acknowledged to be the best in use.

The shafts are all of the best cast steel, and the bearings are made very long. The high rate of speed at which this machine is run permits of doing a large amount of work in a given time.

The several improvements on this mortiser make it very valuable and desirable. We ask special attention to our three-part sliding cap box, as shown in the detail cut. This box requires no liners, and the side as well as top wear can be taken up by setting down the governing screw.

Tight and and loose pulleys, 12x3, and should run 600 revolutions per minute.

NEW STYLE No. 3 POWER MORTISER.


ROWLEY & HERMANCE MANFR'S MAY 9 1871
WILLIAMSPORT, PA. PATENT PENDING SEP. 23 1879
LONGACRE CO.

FOR mortising sash, blinds, furniture and other light work. The solid iron frame extends over the crank shaft, and the patent sliding caps are placed beneath; thus the strain is upon the frame of the machine, instead of the caps of the boxes as in other mortisers.

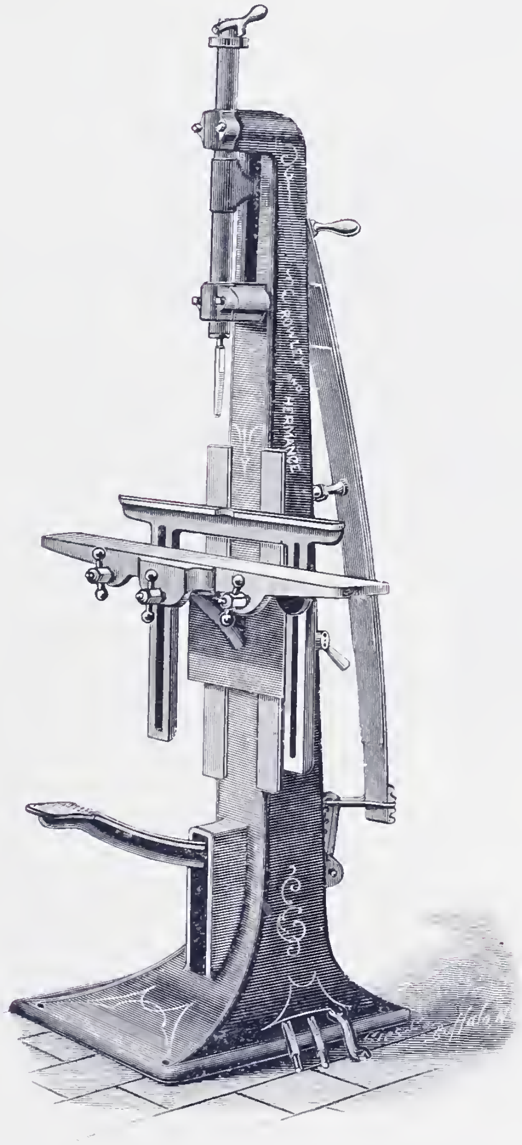
The box in which the rear end of the crank shaft runs is supported by a heavy arm resting in a planed seat, and may be raised or lowered by means of a set screw, so as to keep the shaft at right angles to the spindle. The arm is secured to the frame by four heavy bolts.

The top box which carries the quill is divided in the center, and the lost motion occasioned by wear taken up on the sides, for, as all practical men know, as soon as the crank pin passes the center the pitman forces the quill against either side of the box, thus causing the box to wear side ways, which we fully overcome by this arrangement.

These improvements are very important features, and are not found on any other mortiser.

We furnish three chisels, ¼, ⅜, and ½ inch, with each machine. Tight and loose pulleys 10 x 2½ inches, and should run 700 revolutions. Weight 750 pounds.

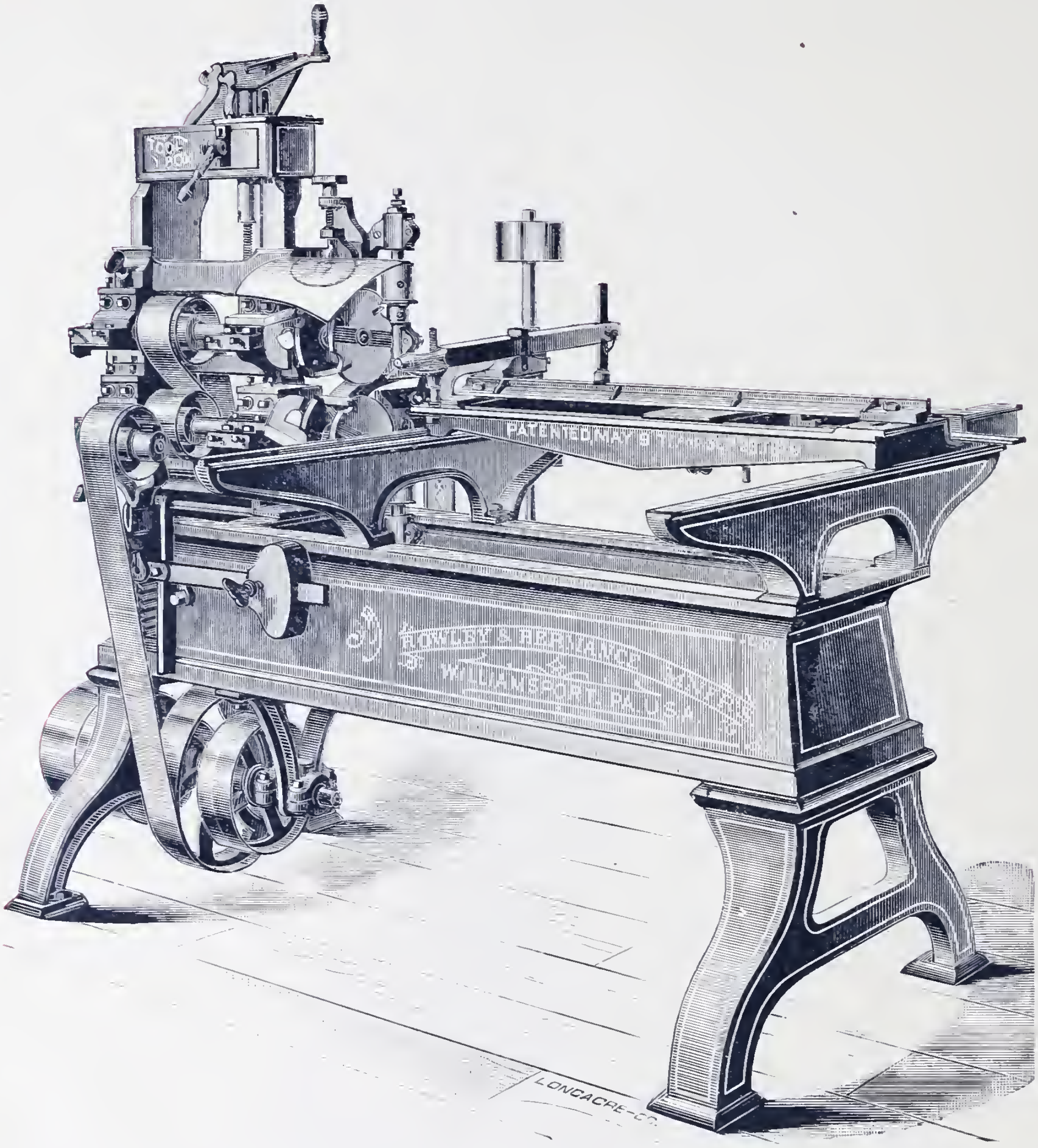
HEAVY IRON FRAME FOOT MORTISER.



THIS is the heaviest Foot Mortiser in market for the price, and we believe it to be the best one made. The table is adjustable, up and down and out and in. The guides are adjustable up and down. The springs are made with four leaves of the best spring steel. The spindle is steel. The reverse is quick and accurate. There are cheaper machines than this, but we know of none equal to it.

New Patent Improved No. 2 Tenoning Machine.

WEIGHT 1200 POUNDS.—PATENTED.

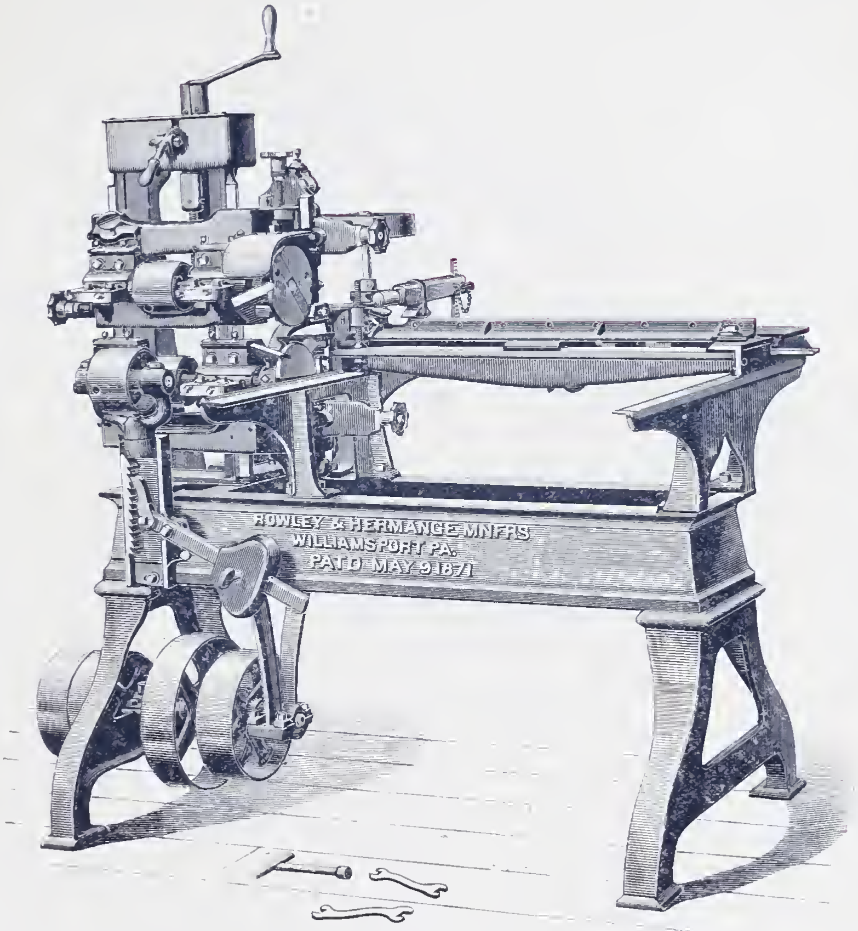


IT is adapted for tenoning doors, sash and blinds, framing furniture and other like work. It will cut tenons of any required thickness, and from ¼ inch to 6½ inches long in once passing through; or by passing through twice, to 9 inches long. It is heavy, strong, durable, and well made in all its parts. Either headstock can be moved up or down independently. The top headstock can be adjusted horizontally, to permit the shoulders to be cut at uneven distances from the end. By a simple but effective arrangement the upper and lower heads are instantly connected, and both heads can be raised and lowered without changing the thickness of the tenon in the least. A single belt drives both cutter heads at the same speed. This belt is tightened by a self-adjusting idle pulley, operated by a weighted lever, with ratchet and pawl, which keeps the belt always at the proper tension. The copes are attached to main headstocks and move vertically with them. Each has also an independent horizontal and vertical adjustment. They are driven from the vertical countershaft attached to the rear of the machine. The cutter heads are either single, 3½ inches in length, or double, 6½ inches long, as may be ordered, and are provided with our patent corrugated spurs. The table is mounted on rollers, which relieves the friction, making it capable of turning out a larger amount of work, with greater ease, than any machine with sliding table. It has a safety hook underneath to prevent rising and getting into the cutters, a common accident on other machines. The hold-down bar is convenient to the operator, and can be adjusted for different thicknesses of work. The fence is adjustable to any angle desired. There is a tool box on top of machine.

We guarantee it to be equal if not superior to any other tenoner made, and to give entire satisfaction.

Tight and loose pulleys, 10 inches diameter and 4-inch face, and should run 900 revolutions per minute.

New Patent No. 3 Tenoning Machine.



WEIGHT, 900 POUNDS.

THIS machine is adapted to tenoning sash, blinds, furniture, spokes or other light work. It will cut tenons of any required thickness up to 3 inches, and from ⅛ inch to 3¼ inches long in once passing through, and by passing through twice up to 5¾ inches long.

Either headstock can be moved up or down independently. The top headstock can be adjusted horizontally, to permit the shoulder to be cut at uneven distances from the end. By a simple but effective arrangement the upper and lower heads are instantly connected, and both heads can be raised and lowered without changing the thickness of tenon in the least. The cutter heads are 3¼ inches in length and are provided with our patent corrugated spurs.

A single belt drives both cutter heads at same speed. This belt is tightened by a self-adjusting idle pulley, operated by a weighted lever, with ratchet and pawl, which keeps the belt always at proper tension.

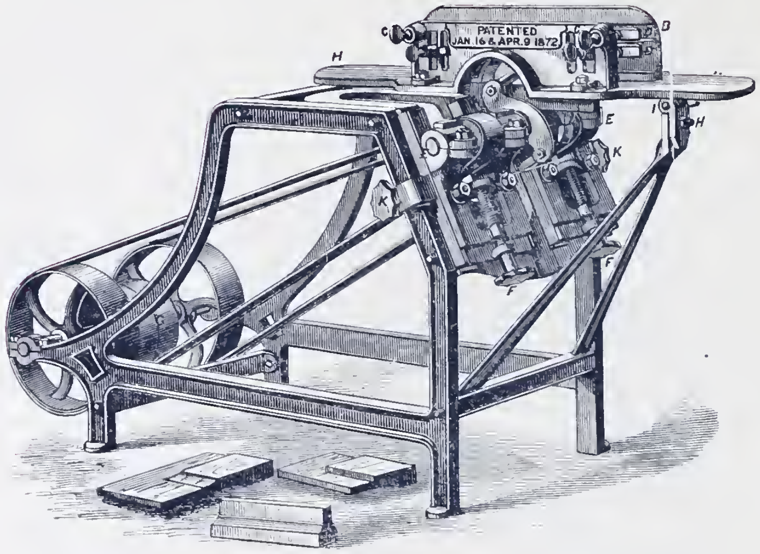
The copes are attached to main headstocks and move vertically with them. Each has also an independent horizontal and vertical adjustment. They are driven from the vertical countershaft attached to the rear of machine.

The hold-down bar is convenient to operator and can be adjusted for different thicknesses of work. The fence is adjustable to any angle desired.

We guarantee this machine to give entire satisfaction. Each machine is tested in our works.

Tight and loose pulleys, 9 inches in diameter by 3-inch face, and should run 900 revolutions per minute.

PATENT ADJUSTABLE PANEL-RAISER.



Patented January 16, 1875, April 9, 1872.

WE invite the attention of door manufacturers to the above cut, representing our Patent Panel Raiser, for raising panels of any style of moulding, O. G., square or bevel. It is the only panel raiser in use that will raise a panel on one or both sides, at one operation, from ½ up to 4½ inches, without change of heads or cutters. Can raise a bevel on one side and O. G. on the other, if desired, at one operation.

This machine is strongly and substantially made, and easily adjusted; weighs about 500 pounds, and is made of iron, brass and steel.

We claim for it the following advantages over any similar machine:

1st. It will raise a panel on one or both sides at the same time, and make any desired variation on either side, up to 4½ inches, without change of heads or cutters.

2d. The heads raise and lower on an incline, consequently the tension of the belts remains the same.

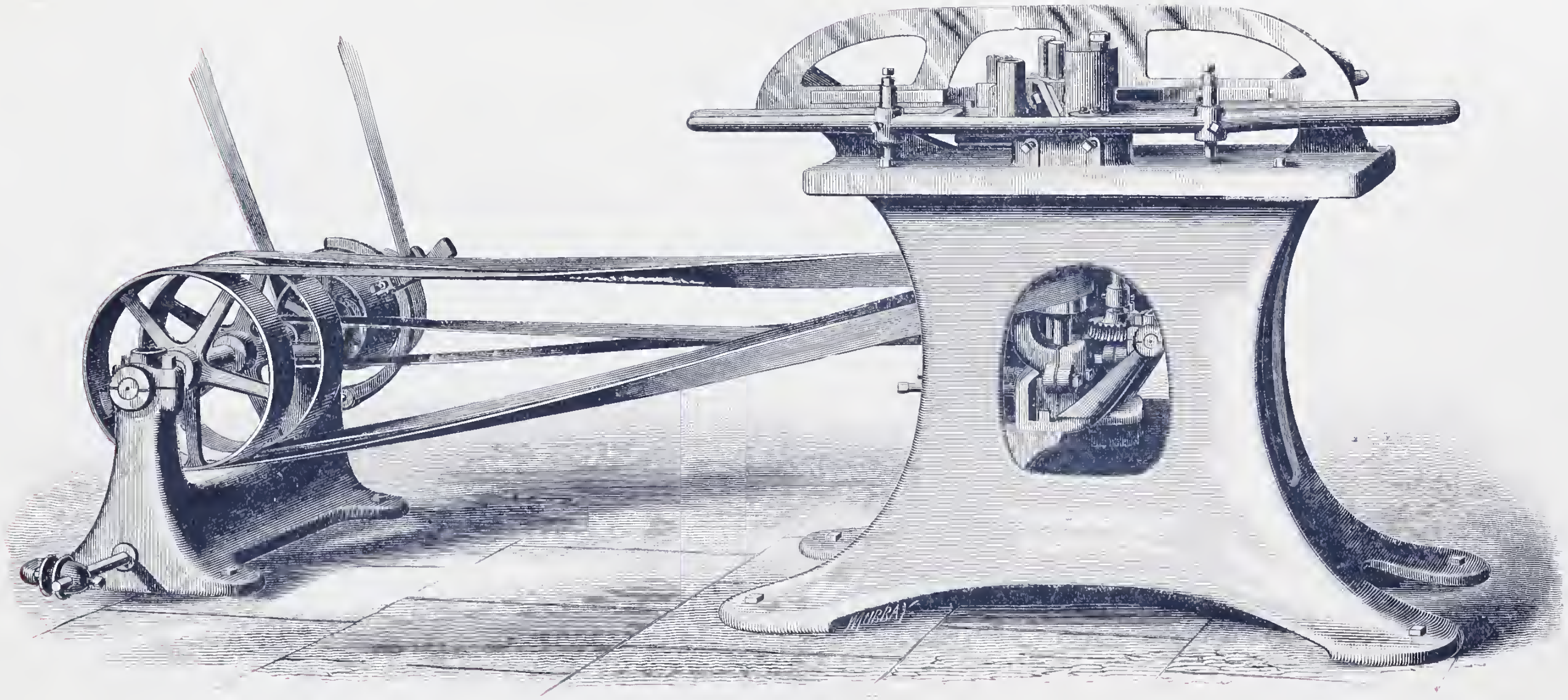
3d. The cutters are set in position to give a shear cut, thus making the panel perfectly smooth in brash or cross-grained stuff.

4th. It will cut smoother across the ends of panels than any other machine.

Tight and loose pulleys, 9x4 inches, and should make 800 revolutions per minute.

A trial of our machine is solicited. We guarantee the machine to give entire satisfaction.

WALKER'S POWER FEED PANEL RAISER.



THIS machine is well and favorably known, being in general use in nearly all the western factories. It will raise both sides of the panel at one operation.

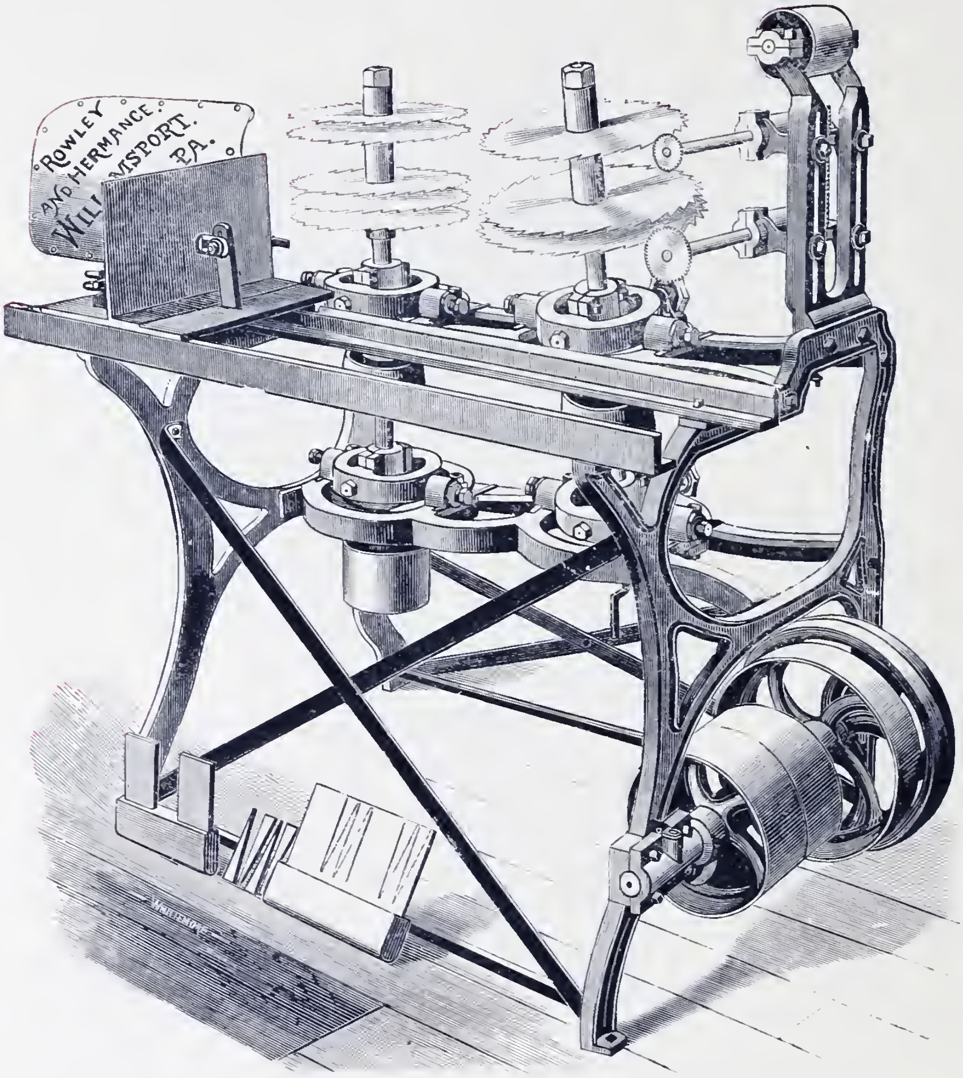
It is built either with or without power feed as desired.

The power feed consists of feed rolls operated by worm gear, which is driven by a cone pulley and belt on the countershaft.

Each machine is furnished with countershaft as shown in cut, one set wide and one set narrow heads, with cutters, one extra feed worm, form for grinding knives, and necessary wrenches.

Tight and loose pulleys on countershaft, 8 in. diameter by 4½ in. face, and should run 1050 revolutions per minute.

Our Single Motion Wedge-Cutting Relisher.


ROWLEY AND HERMANCE WILLIAMSPORT. PA.

Patented April 6, 1875.

COMBINED RELISHER AND WEDGE-CUTTER, for relishing the rail and cutting the wedges at one operation. The cut explains the machine. The first arbor is perpendicular, the second upright arbor is thrown forward on the right angle to give the bevel to the wedge, and can be adjusted to give different bevels to accommodate different widths of tenons, or can be moved to a perpendicular. The two horizontal arbors are adjusted by screws, and can be moved up and down to cut any width of relish. The two small saws are fastened on end of arbors with screws, the heads being flush with face of saws. The sliding bed moves the length of machine on tracks. The rails to be relished are placed on their worked edge, on the bed, with shoulder against the stop, (which can be adjusted to any depth of cut,) and run through machine, thus cutting the relish and wedge in one movement. One man can relish the rails and make the wedges for 1000 to 1200 doors in ten hours. Tight and loose pulleys, 9 x 4, and should run 700 revolutions per minute.

OFFICE OF PALMER, FULLER & CO., CHICAGO, NOV. 24, 1876.

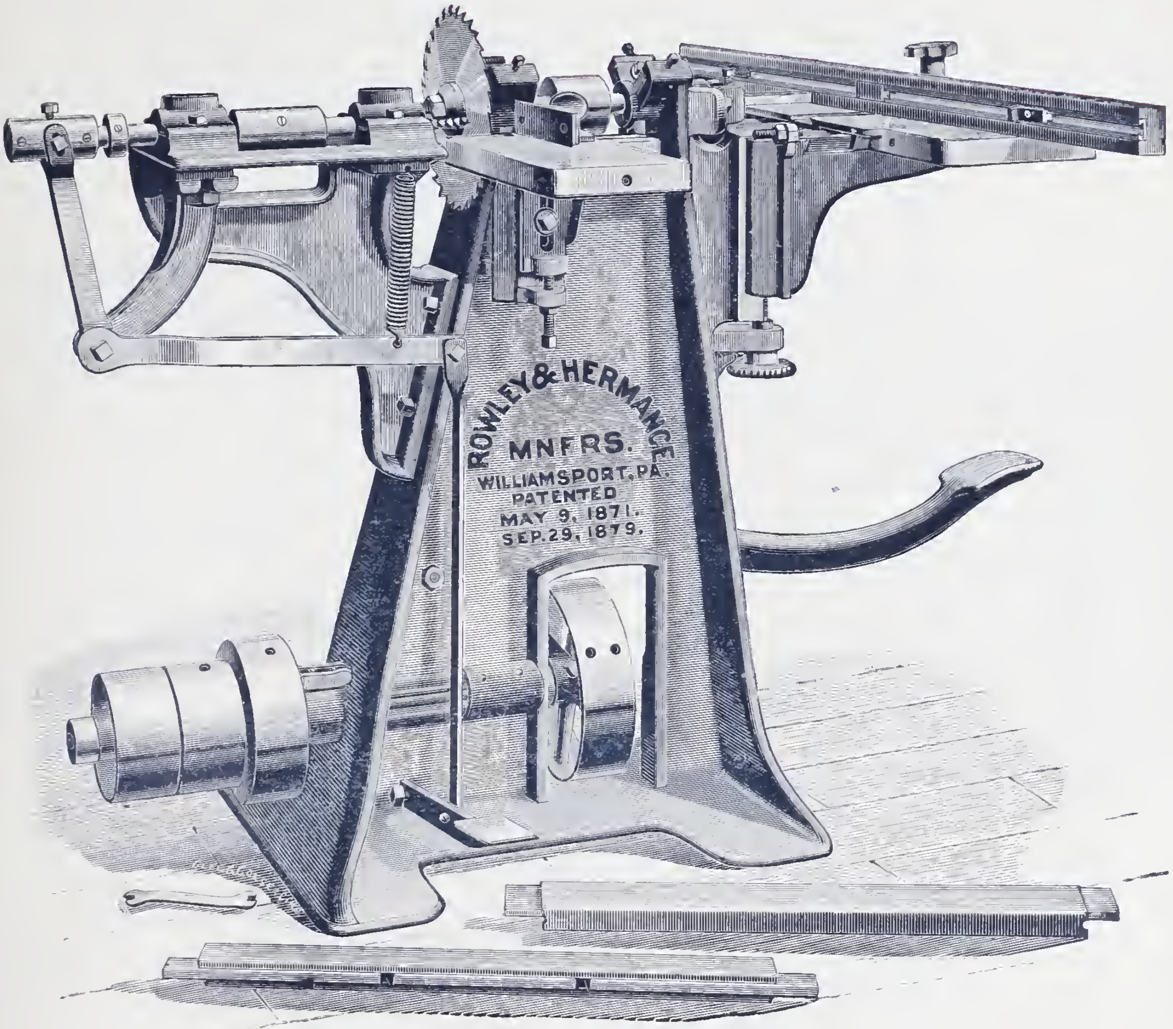
MESSRS. ROWLEY & HERMANCE,

GENTLEMEN: In reply to yours of the 21st inst., would say, your "Combined Relisher and Wedge-Cutter" gives us entire satisfaction. We consider it the best machine of its kind now in use. It cuts wedges for all the doors we make. We have tried it thoroughly, and can recommend it strongly.

Yours truly, PALMER, FULLER & CO.

We are the sole manufacturers of this machine.

Sash Mortiser, with Relishing Attachment.


ROWLEY & HERMANCE
MNFRS.
WILLIAMSPORT, PA.
PATENTED
MAY 9, 1871.
SEP. 29, 1879.

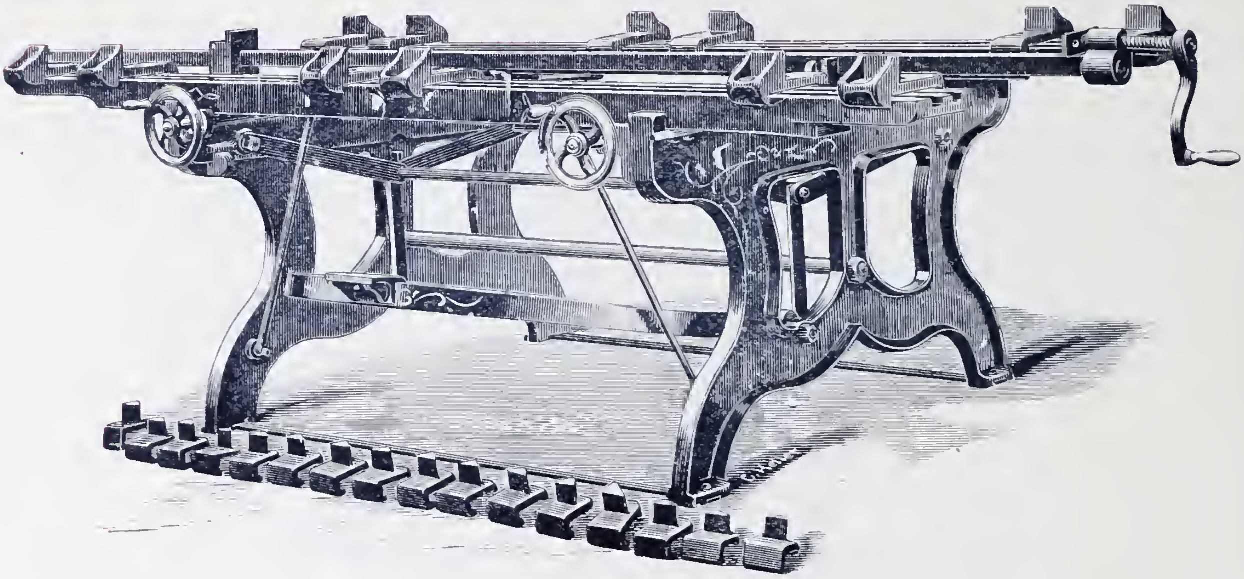
ABOVE Machine is intended for making the mortise for the bars in the meeting rail and top and bottom rails of sash. The work is performed by a stationary hollow chisel with an augur bit revolving inside. This chisel and bit mortise a square hole, cleaning the chips out of mortise as perfectly as a common boring bit. The sash rails are placed on the table, the tenons against stops, which are adjustable to any length of rail. The table is then moved towards the chisel by the foot treadle, up to the stops which govern the depth of mortise. Suitable springs force the table back after the mortise is made. The table is adjustable up and down for different thicknesses of sash. Different sizes of chisels can be used. For example, ½ inch by ½, or ½ inch by ⅝, or ⅜ inch by $\frac{9}{16}$, &c., &c.

The Sash Relishing Attachment consists of a table and rip-saw on opposite end of arbor from the Mortiser; also a boring arbor and bit. The table has an adjustable guide for regulating the width of relish; also an adjustable stop for the shoulder of the tenon. The relish is made by feeding the rail up to the stop and completing the relish with the bit, which is operated by a foot treadle. This work can be done very rapidly by a boy.

We sell the machine either as a Sash Mortiser, or same with Relishing Attachment. We furnish one ½ inch by $\frac{7}{16}$ inch hollow chisel and bit with Sash Mortiser; or when sold as a Mortiser and Relisher, one ½ inch by $\frac{7}{16}$ inch hollow chisel and bit, one 10-inch rip-saw, one ⅜ and one ⅝ bit, and two wrenches.

We warrant machine to give satisfaction. Tight and loose pulleys 9 by 3, and should run 900 revolutions per minute.

Patent Improved Single Motion Door and Blind Clamp.



Patented.

THE above machine is built from entirely new patterns, strong, substantial and durable. It will clamp more doors or blinds in a given space of time, doing the work perfectly, giving pressure on each side of tenon of each rail, clamping ends as well as sides, and do better work than any other machine made.

It is explained by the cut, operated simply by pressing down one lever with the foot and moving the end screw by hand. The change from one size to another can be made in less than one minute, by moving the back plate forward or backward with hand-wheels fastened to screws that run through width of machine.

It will clamp any size up to 4 feet 2 inches wide by 8 feet 6 inches long, in one motion, or twice its length in two motions. It is the only first class clamp in market that is made entirely of wrought and cast iron. There are no ratchets to break, (as ratchets always will,) and no pawls to get out of order. By our arrangement of levers the greatest pressure is applied when the joint is nearly closed or where the increased resistance must be overcome. At this point the cross rod passing through the four horizontal bars rises slightly above the center line, holding the clamp closed until the door is wedged. To release the door, raise the treadle slightly with the foot and it will spring open.

We also make a Sash Attachment for this machine, which will clamp sash on four sides, perfectly square, in one motion. It can be taken off or put on in five minutes.

Four hundred pairs of blinds have been clamped on this machine in ten hours.

HEAR WHAT THEY SAY OF IT.

Oshkosh, Wis., March 25, 1876.

Mess. Rowley & Hermance:—Gentlemen: Your Clamp is decidedly the quickest and best in use. Two boys in our employ, (aged respectively 16 and 18 years,) have to-day clamped, wedged and pinned 360 doors in 10 hours on your machine. When this is beaten on this or any other machine we will try again.

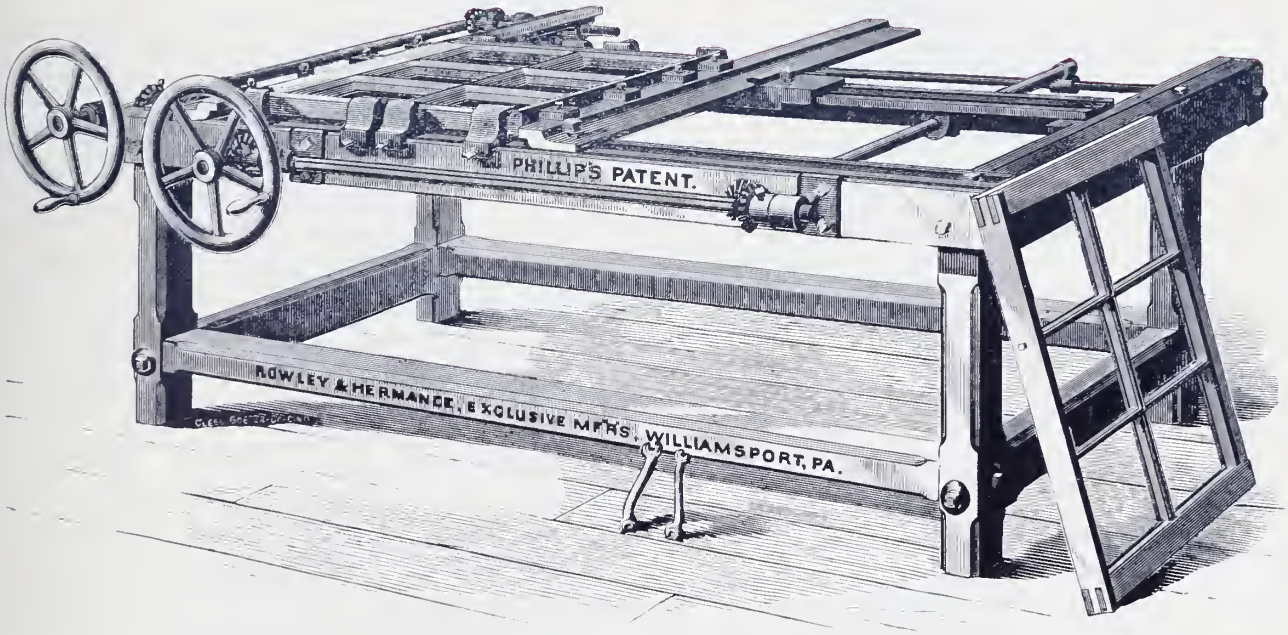
Respectfully yours,

Foster & Jones.

We will send on 30 days' trial to any responsible party, and if not satisfactory, can hold it subject to our order.

We furnish 12 long dogs for doors, and 16 short dogs for blinds, with each machine.

NEW IMPROVED SASH CLAMP.

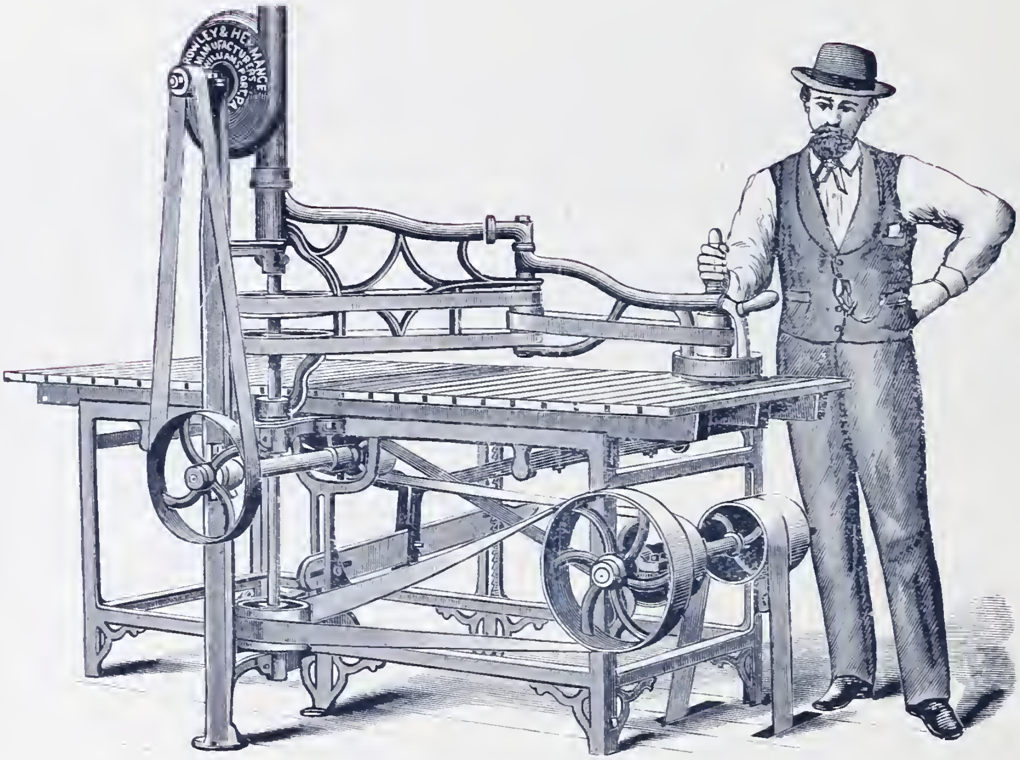

PHILLIP'S PATENT.
ROWLEY & HERMANCE, EXCLUSIVE MFRS. WILLIAMSPORT, PA.

THE above cut represents a new and improved machine for clamping sash, and is now for the first time introduced to the public. The chief difficulty with all machines heretofore invented is that they cannot be depended on to clamp the sash perfectly square, and that in changing from one size to another the machine must be "squared up" before the work can be done, a process causing the loss of valuable time. Every operator knows that it is cheaper to clamp "odd sized" sash or a small lot of a few windows of one size with the old style screw clamp, than to adjust any of the patent sash clamps now in use. The above machine is the first sash clamp ever made that is absolutely square at all times, and with which odd sizes can be clamped as quickly as stock sizes. The cut explains the operation of the machine. By turning the large hand-wheels the sash is clamped on all sides at once perfectly square. The pressure on the stiles and rails is independent of each other and can be regulated at will, a very important point in doing good work.

It will clamp sash from 4 feet wide by 6 feet long to 1 foot wide by 2 feet long. We warrant it to give satisfaction on trial of 30 days.

NICHOLS' PATENT SAND-PAPERING MACHNE,

WITH SUCTION FAN.



THE above machine is well known, and acknowledged to be the best machine in the market for scouring, finishing and polishing sash, doors, blinds, furniture, piano cases, or any flat surface. One great advantage of this machine is the Suction Fan Attachment. The dust is drawn through hollow arms into the fan, and by attaching tin pipes, is deposited in any required place, keeping the surface of the work and the shop free from dust, thus avoiding slow but sure death to the operator and workmen in the room, caused by inhaling the fine flinty dust into the lungs. It is simple in construction, not liable to get out of order, and has recently been improved. It has tight and loose pulleys 8 inches in diameter by 4 inches face, and should run 600 revolutions per minute.

Those in want of a Sand-Papering Machine should examine the advantages ours has over the small, cheap machines that have no Suction Fan Attachment. The difference in the price is not so great, when the cost of making a table to raise and fall, and the difference in setting up the machine, is taken into consideration.

We will send to any responsible party on trial for thirty days.

Machine for Boring Holes for Pins.

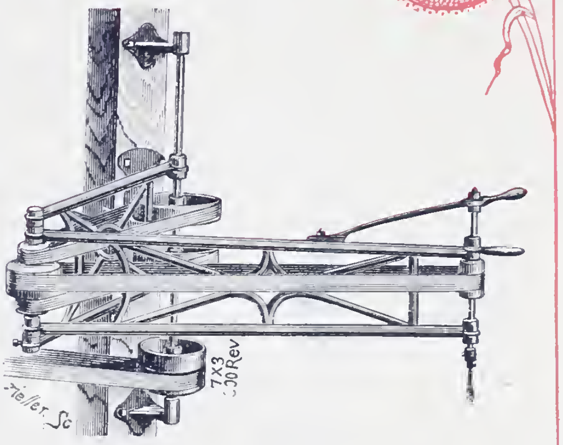
ONE of the greatest labor-saving machines in use. A boy will bore five holes with this machine to one with an ordinary brace and bit. It is operated by simply pressing the hand on a spring, and on removing pressure the bit is immediately withdrawn.

These machines are coming into universal use.

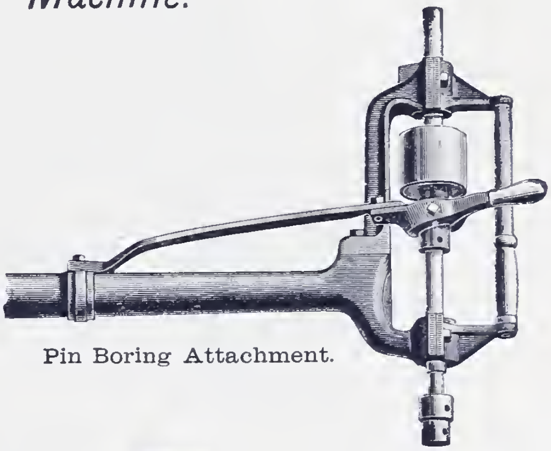
Will send on trial; if not satisfactory, can be returned.

Tight and loose pulleys, 7 by 3, and should make 300 revolutions per minute.

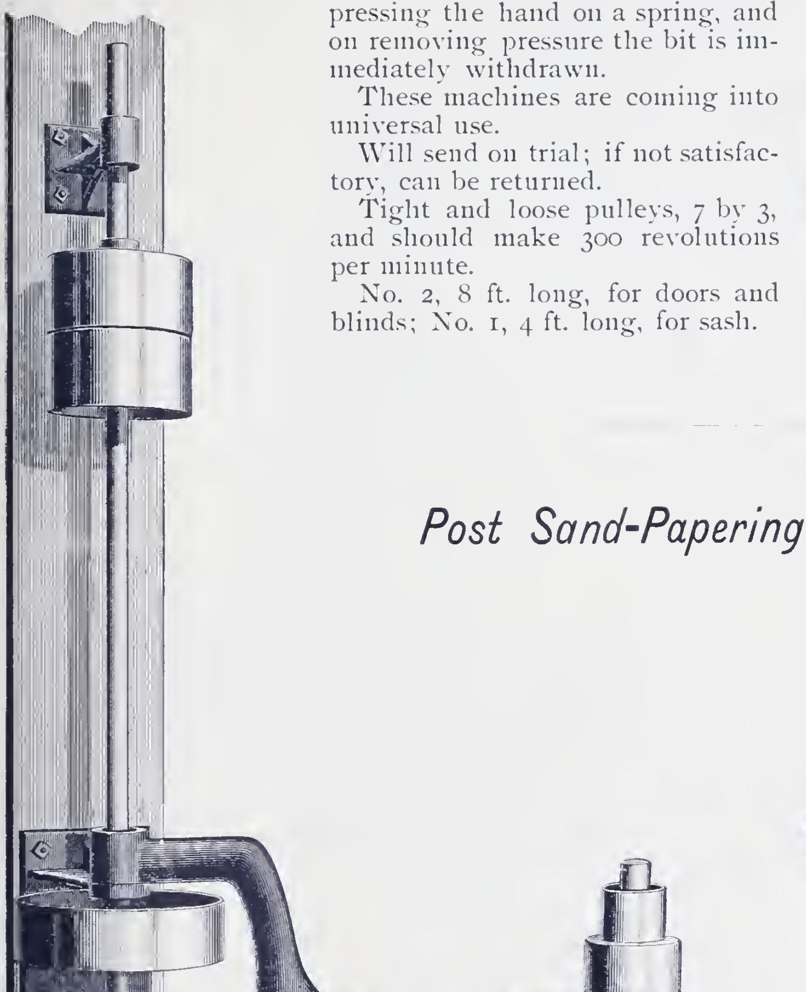
No. 2, 8 ft. long, for doors and blinds; No. 1, 4 ft. long, for sash.

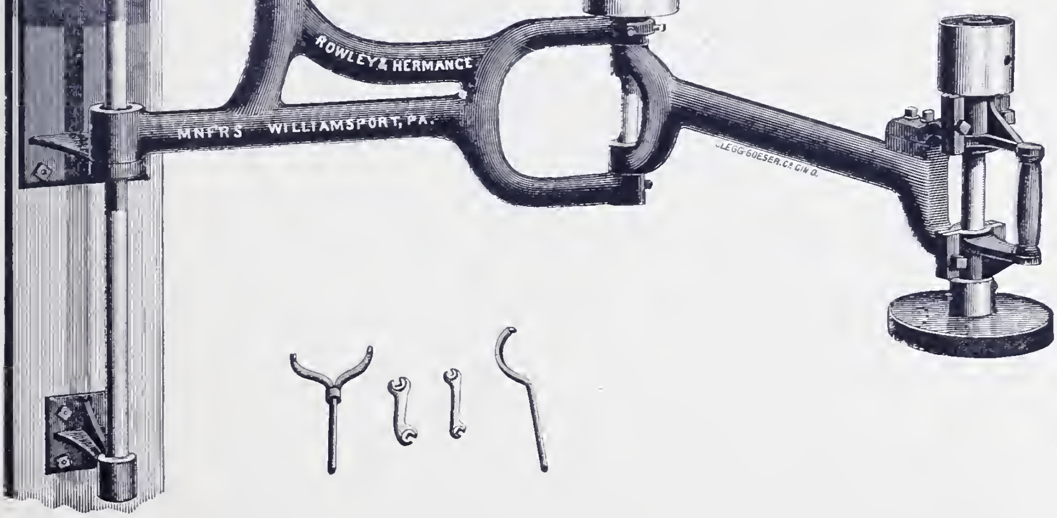


Post Sand-Papering Machine.



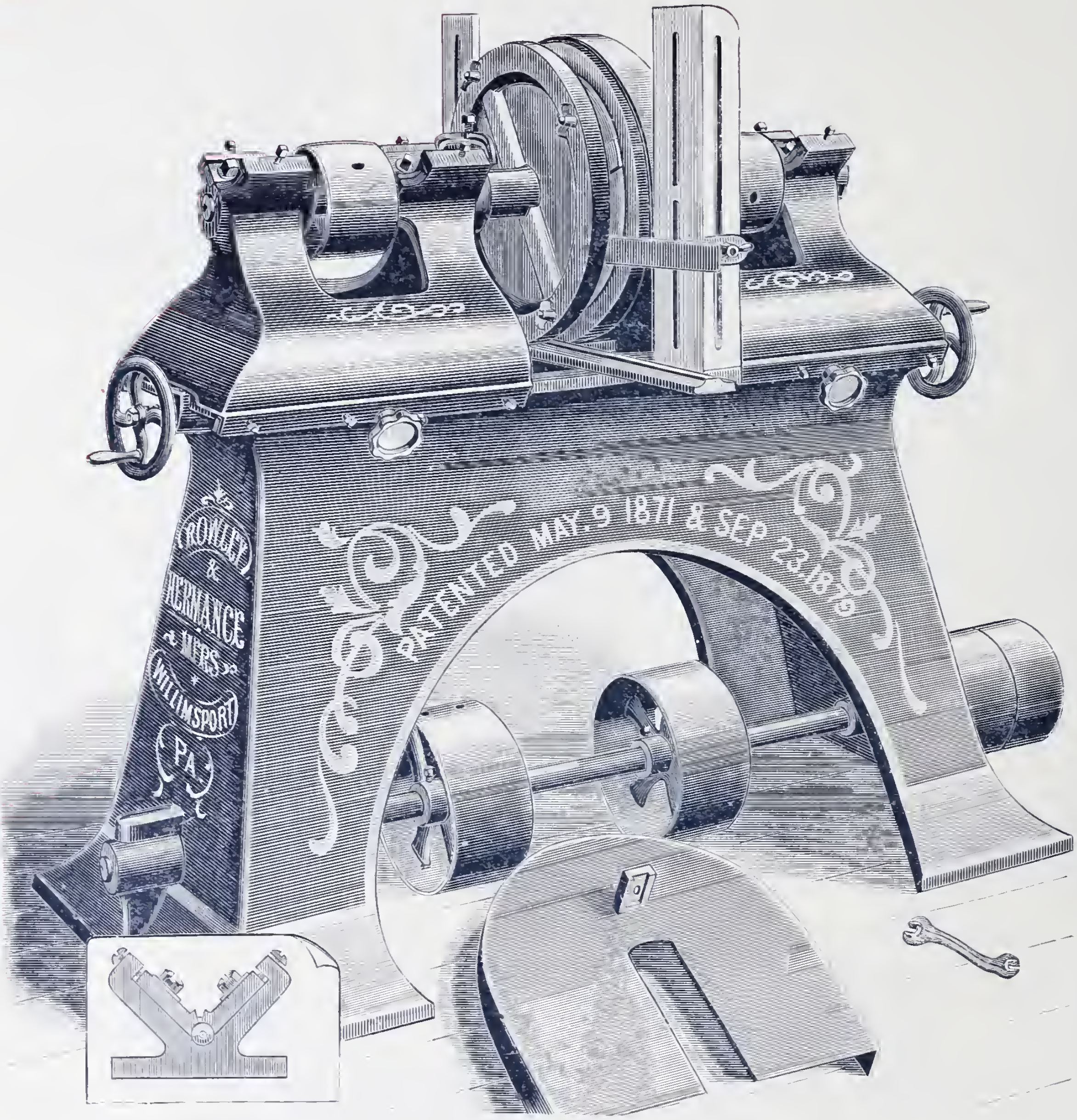
Pin Boring Attachment.





THIS Machine is intended for sand-papering doors, sash, blinds, furniture, coffins and all plain surfaces, and is the most rigid machine of its class in market. It has no suction fan or table, but is made to meet the want of those who cannot afford a more expensive machine. When desired we add the Pin Boring Attachment, as shown in cut, to the Post Sand-Papering Machine. Tight and loose pulleys, 8 by 4, and should run 650 revolutions per minute.

Double Disc Sand-Papering Machine.



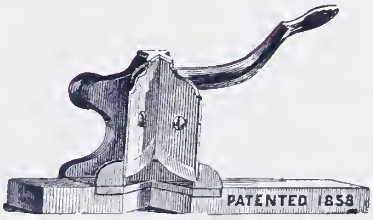
THE above machine is expressly intended for sand-papering one or both surfaces of door panels, blinds, outside and inside shutters, mantels, window jambs, drawer fronts, cupboard doors, &c., &c., at one operation. It has two vertical discs running opposite to each other, one of which has a lateral motion, governed by spring, to adjust to irregularities of work.

This machine is now coming into general use in blind factories for sand-papering and finishing both sides of the blind or window shutter at one operation, doing the work better than can be done by hand. To meet this demand we now build two sizes of this machine to work 13-inches and 20-inches wide, and from ¼-inch to 4-inches thick.

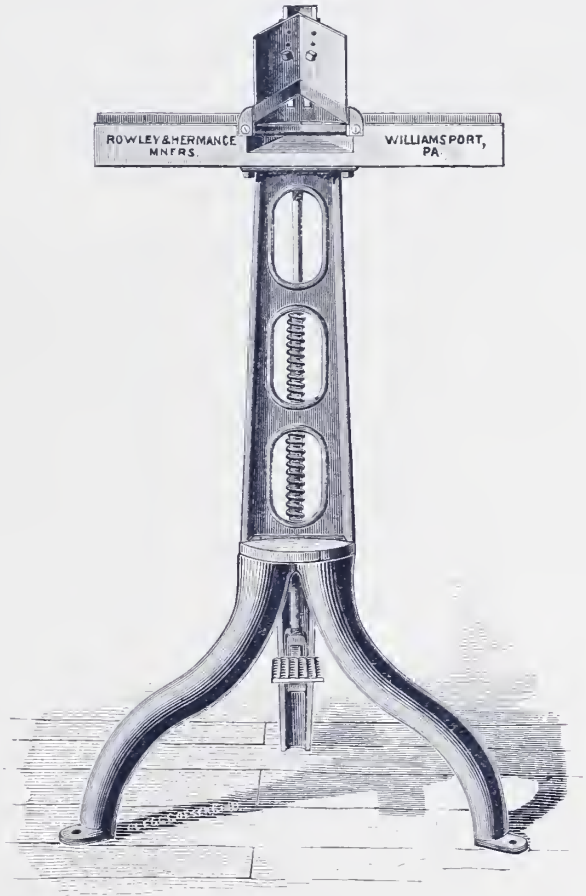
It will sand paper panels for 500 doors per day on both sides. The 20-inch machine will finish 200 pairs of blinds in 10 hours.

Tight and loose pulleys on the 20 inch machine 10 in. dia. by 6 in. face, and should run 730 revs. per minute.
" " " " " " 13 " " 10 " " " 6 " " " " " 960 " " "

HAND MITRE MACHINE.



To cut 2¼ inches wide,
“ 3 “ “


ROWLEY & HERMANCE MNFRS.
WILLIAMSPORT, PA.

COMMON FOOT
Mitre Machine.

To cut up to 2¼ in. wide,
“ “ 3 “
“ “ 4 “

Large Foot Mitre Machine.

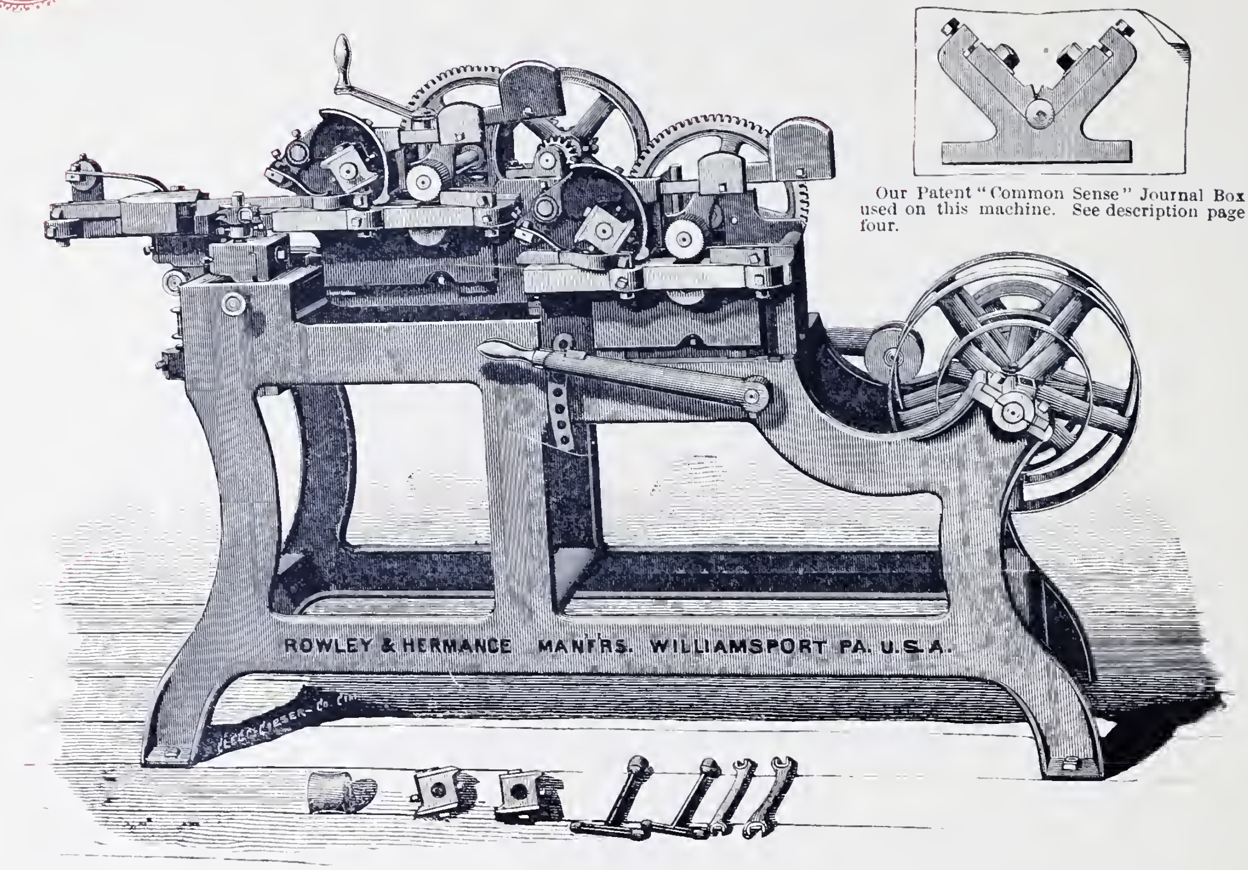
For rabbeted mouldings and picture frames.

This machine has our attachment to support the rabbet which prevents the knife from splintering the work.

To cut up to 2¼ in. wide,
“ “ 3 “
“ “ 4 “

Machinery, belting, and mill supplies, of all kinds, at lowest prices.

New Pattern Double Blind Slat Planer.



Our Patent "Common Sense" Journal Box used on this machine. See description page four.

Patented.

OF new design, heavy, durable, frame cast in one piece, strongly geared, powerful feed. Side heads run with long independent belts from countershaft.

All objections in other slat planers overcome in this.

Blind slats should be finished perfectly smooth, as a defective slat shows plainly and condemns the blind.

Where slats are finished on an ordinary 4-sided moulder, with one head working against the grain, about 33⅓ per cent. of the slats are left rough by tearing out or being wavy. These are generally thrown away. In order to save this loss, most of the manufacturers run the slats twice through the machine to finish them with the grain. We here offer a double slat planer, for planing the slats with the grain, in once passing through, thus avoiding the splitting and tearing out, as is the case when one side is run against the grain.

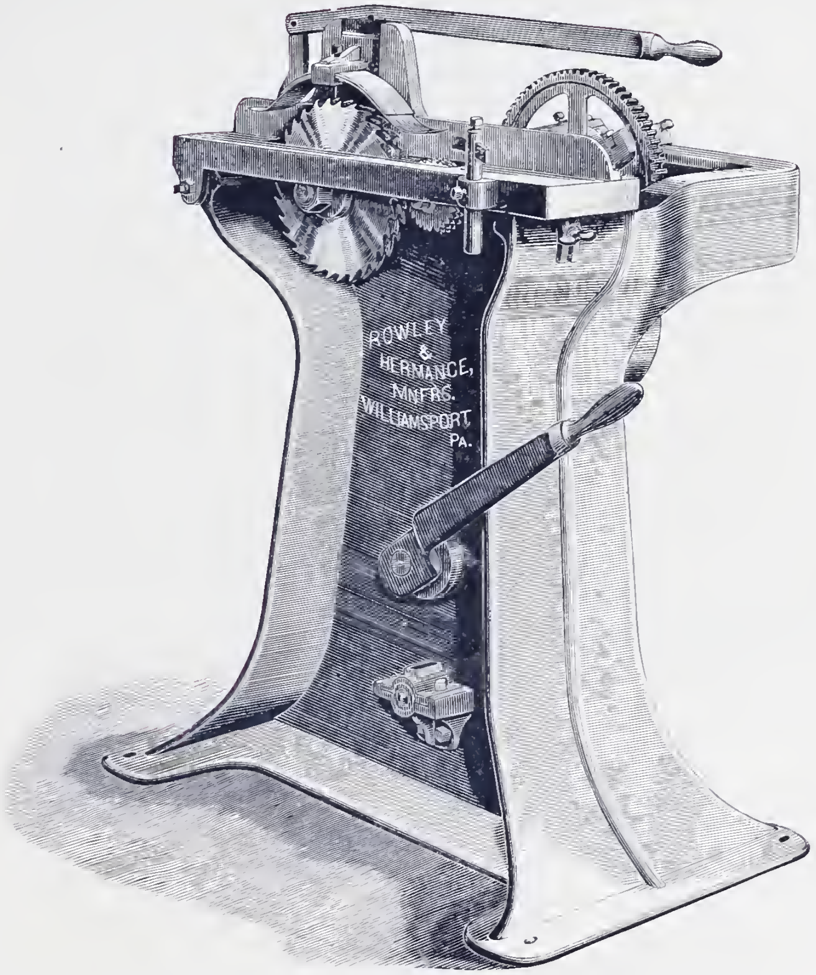
It is two machines in one, having upper and lower tables, and two sets of double-geared feed rolls, making a most powerful feed. The slat is run under the lower cutter or single head first, then turned over and placed on the upper bed beneath the feed rolls, which carries it through the upper or three-sided machine, finishing the slat with the grain, the operator having time to grain his stuff when feeding.

It has our Patent Journal Box, (see page 4,) as shown in cut above; and it will be seen that as the box wears, the quarter sections can be set down, which prevents the vibration and heating of the mandrels. It can be run at a high rate of speed, which is very essential in a machine for this kind of work. It is the smoothest planing machine known. It has upper and under geared feed rolls, and if kept in proper order, will plane from 8,000 to 12,000 12-inch slats per day.

We will send to any responsible party in the U. S., let them try it thirty days, and if not satisfactory, no sale.

Occupies about 6 feet x 2 feet 3 inches and weighs 900 pounds. Tight and loose pulleys 8 inches diameter by 3 inches face, and should run 750 revolutions per minute.

BLIND SLAT RE-SAWING MACHINE.



THIS MACHINE is designed for sawing blind slats, small mouldings, trunk slats, &c., &c. Will feed from thirty to fifty feet per minute. Has either two or three 10-inch saws. The frame is very heavy and is cast in one piece. It has a bearing on outside of driving pulley. The stuff is held down by an adjustable spring, which also forms a shield over the saws, is raised or lowered and held in place by a self-setting lever convenient to operator.

The strips between the saws can be adjusted, and by using extra collars, different thicknesses of stuff can be sawed.

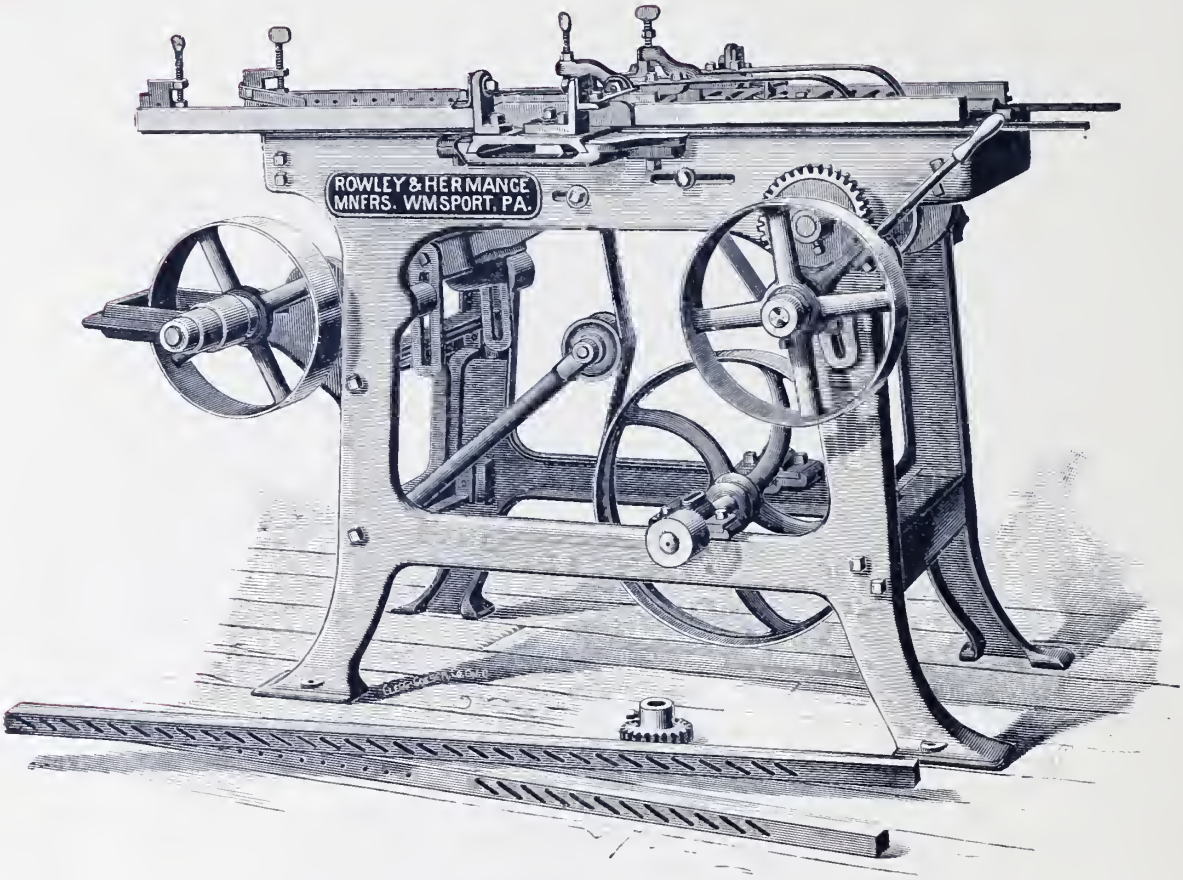
Feeding spurs same thickness of saws are arranged to run directly in front of saws.

Any small boy of 12 years or upwards can feed it, thus saving more expensive help.

Driving pulley 5 by 5, and should run 3500 revolutions.

Occupies 3½ by 2½ feet. Weight, 650 pounds.

New Pattern Blind Stile Borer and Mortiser.



THE above cut represents our improved machine of entirely new design, for boring stiles for rolling blinds, and mortising stiles for stationary blinds.

It is a very heavy, solid frame, and all the parts are constructed as strong and simple as is possible to make them and attain good results. The stile is bored while lying on its side, which allows the operator to see how the work is being done; it not only bores and mortises true and smooth, but spaces accurately every time, and cannot possibly vary the length of spaces. It will make any length of mortise, from a round hole up to 2½ inches, and leave the mortiser perfectly free from chips. The mortises may be placed any distance apart up to 2 inches.

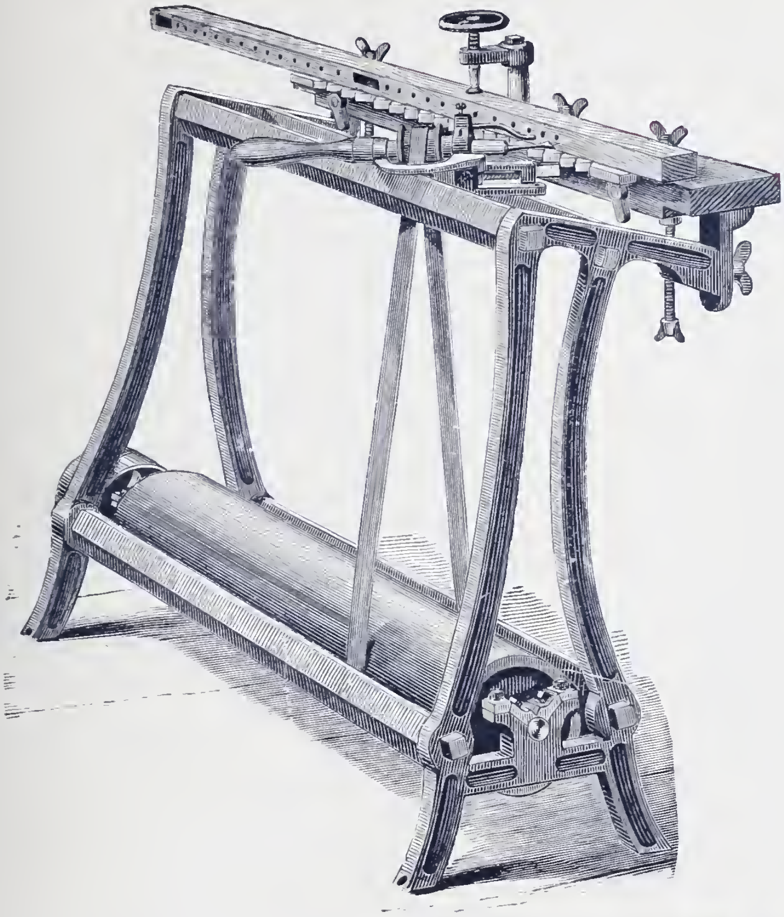
The machine is so constructed that it runs much faster when boring for rolling blinds than when mortising.

We build a machine from these patterns for railroad shops, especially adapted to their work, viz: Mortising hard-wood blinds for passenger cars; there is no other machine in the market that does this work as smooth and accurate, every mortise being absolutely the same depth, which is important in car work, as every slat must rest in the bottom of the mortise.

These machines are used by the Pennsylvania Railroad Co.

Tight and loose pulleys, 7-in. diameter by 2½-in. face, and should run 600 revolutions.

ELLIS' PATENT BLIND STILE BORER.



THE most simple and effective machine yet introduced for boring holes for slats. It will do work faster and better and for about one-half the cost of automatic feeding machines.

A boy can bore the stiles for two hundred pairs of blinds in ten hours with this machine.

It has the Ellis patent journal box.

Will send one subject to 30 days' trial.

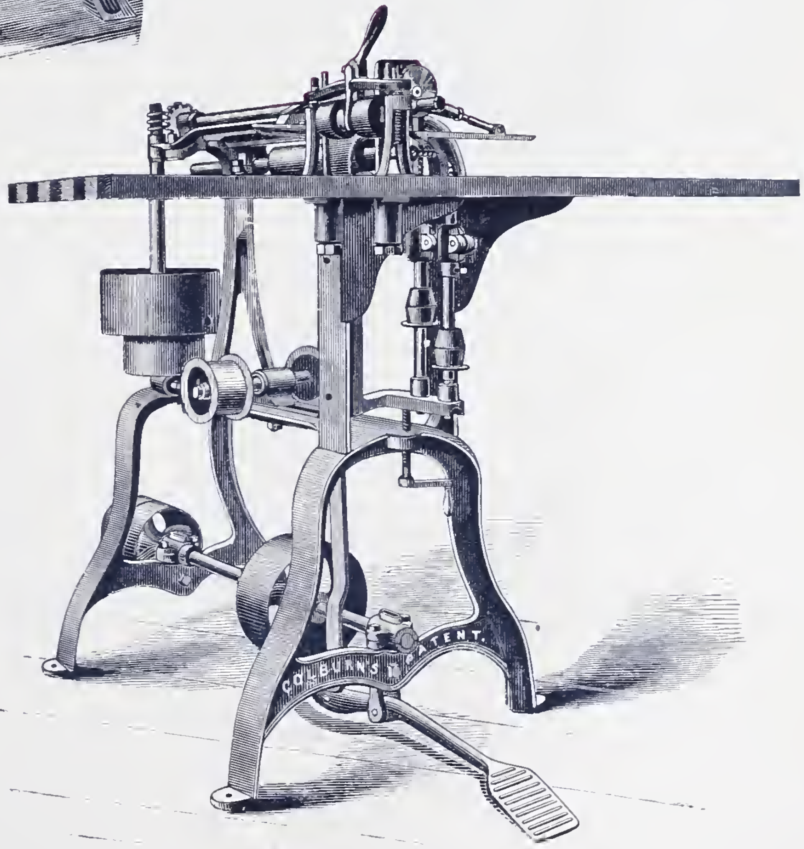
Tight and loose pulleys, 6 x 2, and should run 400 revolutions.

COLBURN'S PATENT

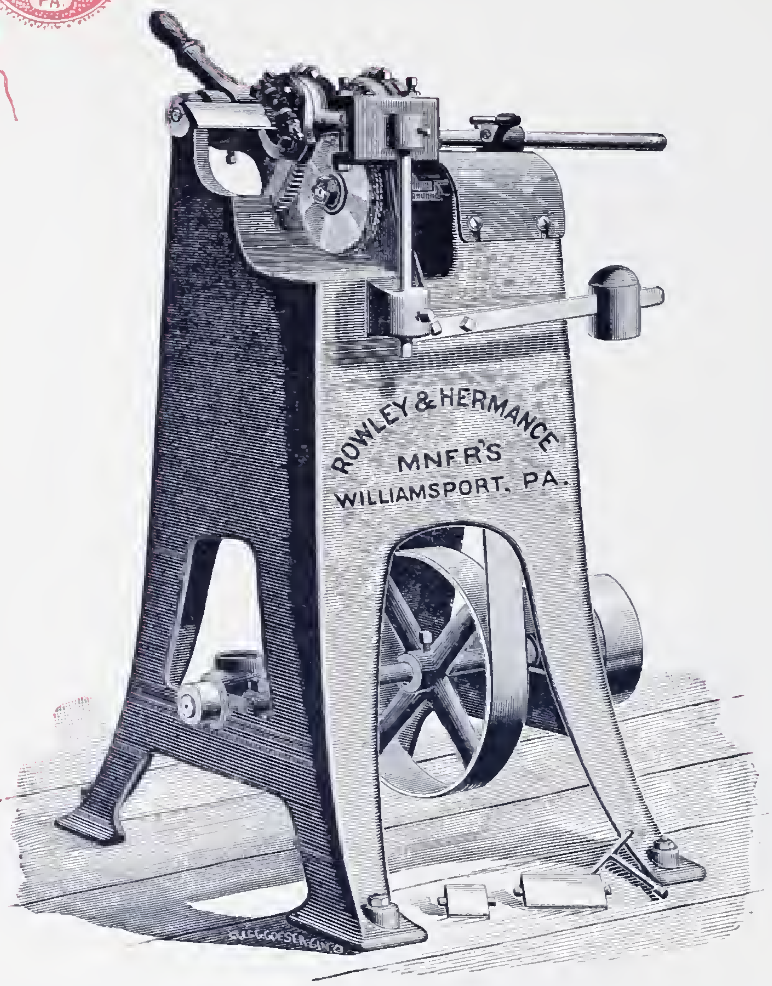
BLIND STILE BORER.

CAPACITY, 8,000 HOLES PER HOUR.

THIS machine is designed for boring stiles for rolling blinds exclusively. The two vertical bits will bore, without any previous marking or laying out, 8,000 holes per hour. The stiles, after being jointed, are placed upon the table, with a ratchet or pattern between them, the lower ends of the stiles resting against two blocks, which being securely fastened to the end of the pattern, are moved over the bits by means of a pawl working in the notches of the pattern. It spaces its own work with perfect accuracy, at any distance apart, from 1 to 1⅞ inches, and bores the entire length of the stile without stopping; hence no time is lost in stopping the machine to pass the lock rail mortise, nor to lay out the work, as the boring is always done before mortising. The horizontal boring attachment not furnished unless specially ordered. Tight and loose pulleys, 6½ inches in diameter, and should make 700 revolutions per minute.


COLBURN'S PATENT.

NEW "RAPID FEED" SLAT TENONER.



THIS cut illustrates our New and Improved Machine for Tenoning Slats for both outside and inside blinds.

It will tenon slats from ⅞ inch to 2 1-16 inches in width and from ¾ inch to 24 inches in length.

We claim that this machine is capable of cutting more slats in a given time than any other machine in the market, and no machine made will do better work:—

1st. Because the device for holding the slat is self-centering, thus always making the tenon in the centre of the width of the slat, but is so arranged that the tenon may be placed nearer one edge if so desired.

2d. The slat is firmly held while it is being cut, and is not released until the tenon has been completed and the slat cut off.

3d. The slat is moved to the saws and two tenons cut by one motion of the lever, thus performing the operation quickly, and at the same time allowing the operator to vary the feed to suit the nature of stock to be worked, whether hard or soft wood. By this arrangement perfect work may be done in the shortest possible time,

4th. The stop which determines the length of slats is simple and positive, and admits of no variation in the length of slats.

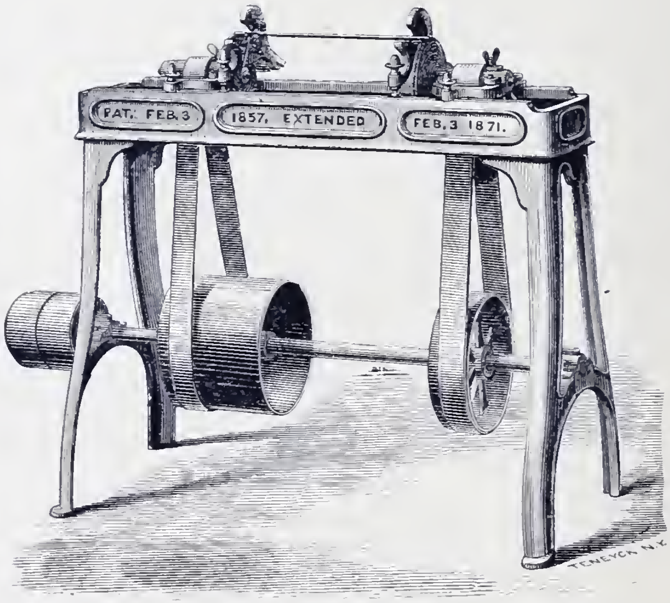
The saws are perfectly accessible, thus causing no trouble or delay in removing them when they become dull.

The machine may be run by any boy, since it has no delicate or complicated parts to get out of repair. The tight and loose pulleys are 6 x 2½, and should run 900 revolutions per minute.

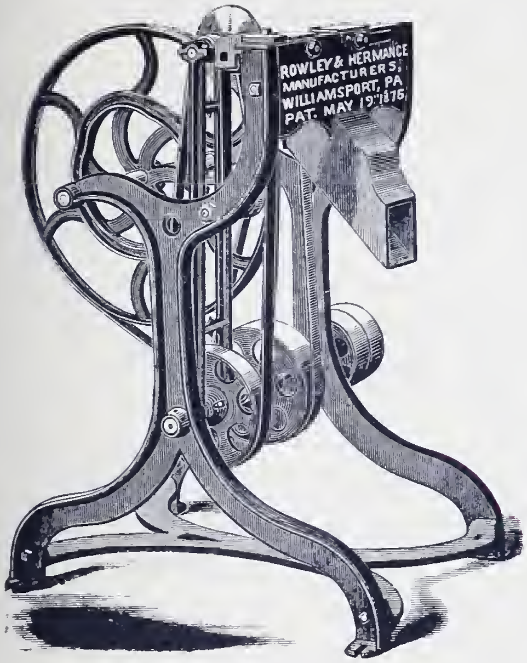
Ellis Patent Blind Slat Tenoner.

THE best machine made for tenoning slats for outside blinds only.

Tight and loose pulleys 6 x 2½, and should run 600 revolutions per minute.


PAT. FEB. 3
1857, EXTENDED
FEB. 3 1871.
TENEYCK N.Y.

Eureka Pin Making and Pointing Machine.



CUTS and points from 80 to 130 pins per minute, either $\frac{1}{4}$ or $\frac{5}{16}$ inch diameter, and any length from $\frac{1}{2}$ to 4 inches, leaving them round or square. Every pin perfect. The only machine in the market that will make and point pins, cut them off at any desired length, and leave them round or square.

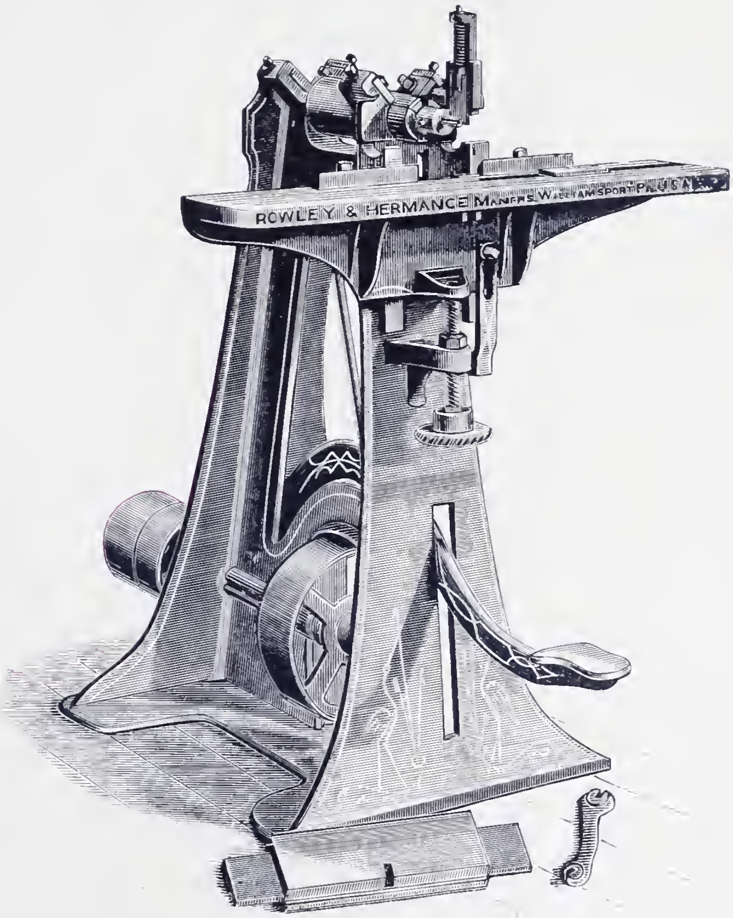
The pins are rounded by passing through a hollow mandrel, and pointed up by a rotary pointing cutter. The cut-off saw is operated by a cam, and is automatic. It is indispensable in every sash, door and blind factory, as by the present method pins are pointed by hand. Every machine warranted to give satisfaction, or no sale. We only ask for a trial.

Tight and loose pulleys 6 by 2, and should run 1200 revolutions per minute.

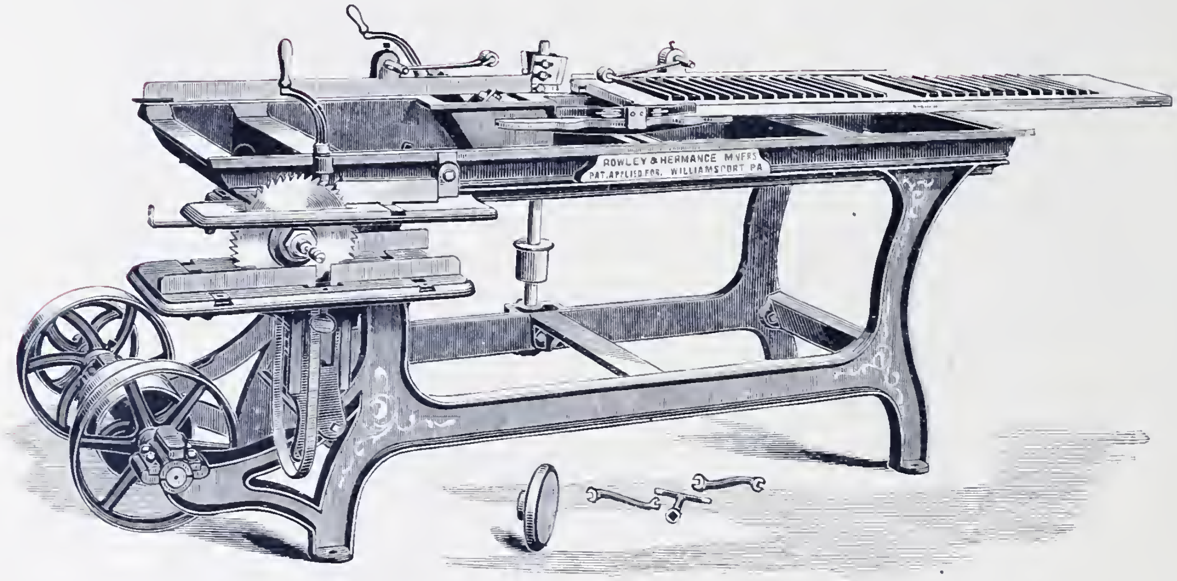
Blind Rail Router.

THIS machine is designed for cutting the recess in middle and top rails of blinds for the rods, and is simple, quick and efficient. It does the work much better and a great deal faster than by any other method.

Tight and loose pulleys 6 by 3, and should run 900 revolutions per minute.


ROWLEY & HERMANCE MANFRS. WILLIAMSPORT PA. U.S.A.

Blind Jointing, Rabbeting and Beading Machine.


ROWLEY & HERMANCE MFRS
PAT. APPLIED FOR. WILLIAMSPORT PA

VIEW AS A BLIND MACHINE.

THIS machine is designed for jointing, rabbeting and beading blinds of any width in one motion. It is simple, quick and efficient and can be operated by a boy.

The head on upright arbor rabbets and joints, and is constructed so as to give the knives a draw cut, which leaves the work smooth.

The head on horizontal arbor beads the stile, and is adjustable for different thicknesses of work.

The spring that holds the blind up to the gauge is fastened on outer bed rest, and is quickly adjusted for different widths.

The blind is fed by hand, and is finished in once passing through.

The guides are in two parts; the one in front of the cutter-head can be adjusted to take a heavy or light cut; the guide in rear of cutter-head is always set forward the depth of the cut, by which means the blind is jointed perfectly straight. This feature is a very important one.

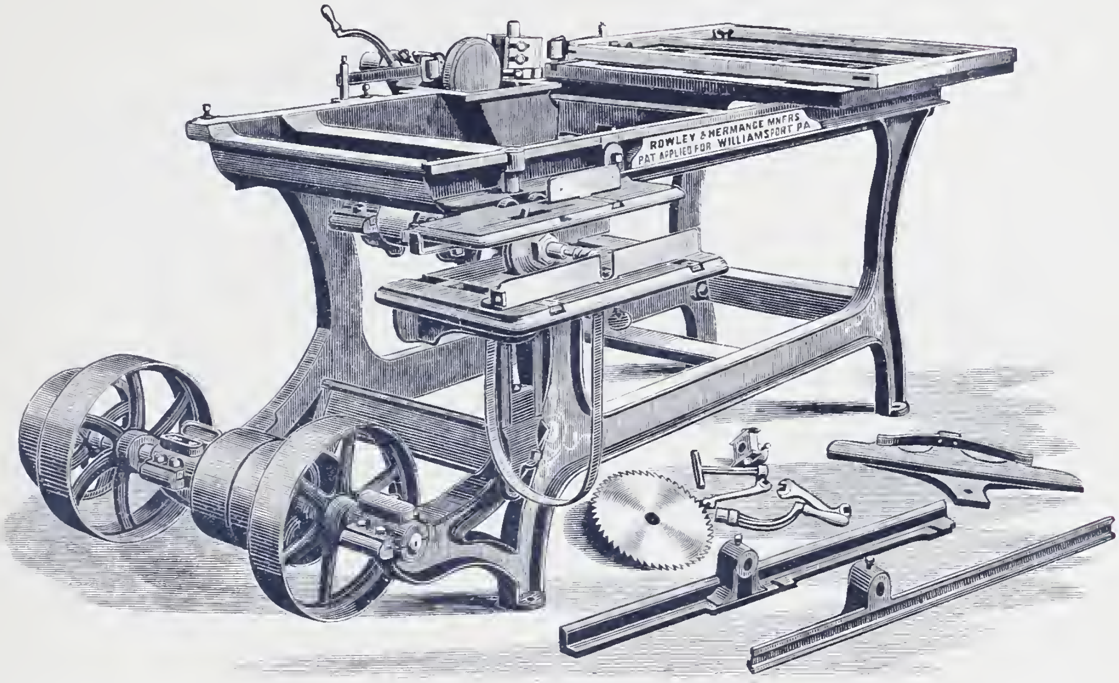
Six hundred pairs of blinds can be jointed, rabbeted and beaded on this machine in 10 hours.

Tight and loose pulleys, 8 x 4, and should run eight hundred revolutions per minute.

We guarantee it to give satisfaction.

Combined Sash Jointing and Sand-Papering Machine.

WITH PLOUGHING, BORING AND SASH RELISHING ATTACHMENT.


ROWLEY & HERMANCE MNFRS
PAT APPLIED FOR WILLIAMSPORT PA

VIEW AS A SASH MACHINE.

THIS is the first machine ever offered to manufacturers of sash that will joint and sand-paper the meeting rail of sash. It is exceedingly simple and rapid, joints the meeting rail square and straight in one motion, better than can be done by hand, and can be operated with cheap labor. The sash is placed on movable carriage, and meeting rail rests against adjustable stops, by which means a heavy or light cut can be obtained. Springs hold the sash in position while passing through, thus leaving meeting rails all one thickness. Eight hundred windows have been jointed and sand-papered in ten hours on this machine.

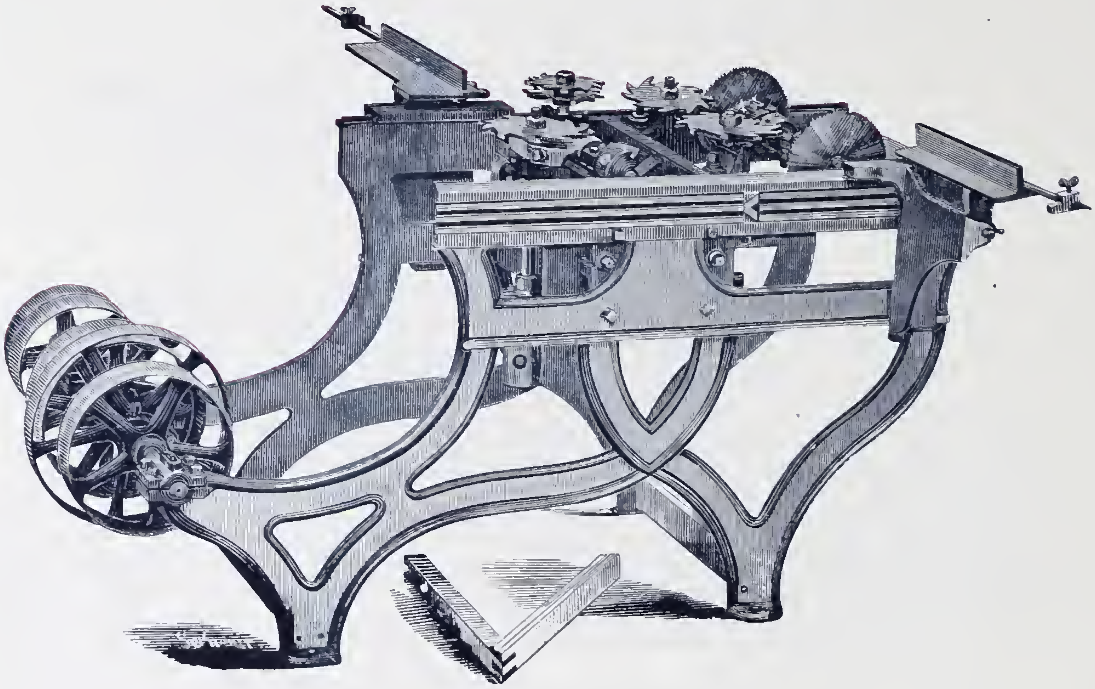
The Ploughing and Boring Attachment is also simple and easily operated. The sash is placed against a gauge on lower table, at an angle of about 30 degrees, and the stile is bored for cord with one bit. The sash is then placed against the gauge on upper table and grooved or ploughed to the hole; thus the cord can be heavily knotted and slipped into the hole, and the weight of the sash will draw the knot to the bottom. By boring a single hole on an angle the sash is held firm, and can be taken out easily. This method is far superior to the old system of boring two holes and connecting them together by means of a smaller hole, and avoids the annoyance of slipping a cord through and knotting after the sash is hung. When the latter plan is prefered, however, an extra arbor is provided so that the two larger holes and the vertical connecting hole may be bored without change. This attachment is only furnished when ordered, and at additional price.

We have added a Sash Relishing Attachment, which relishes the rail perfectly in one handling, without laying down the stuff, and is ten times faster than the old method of slitting tenon on a saw, cutting out with mortiser and trimming with knife. This improvement makes it the most valuable machine in use. The head for sand-papering the meeting rail across the end of stiles and bars does very fine work, and recommends itself.

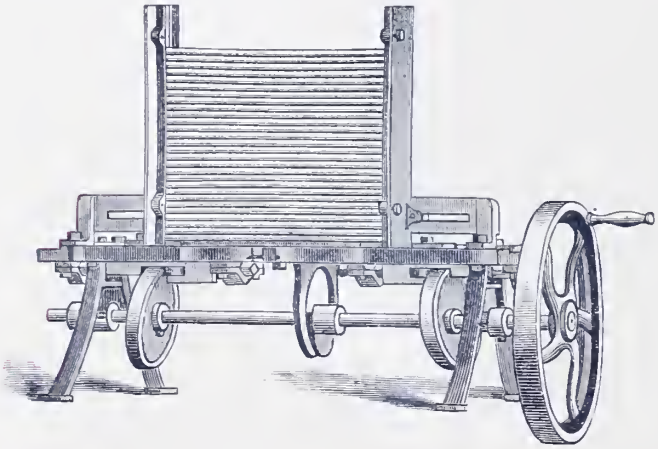
It is the most complete Sash Machine in use. We guarantee it to give satisfaction.

Tight and loose pulleys 8 by 4, and should run 800 revolutions per minute.

Improved Patent Sash Dovetailing Machine.



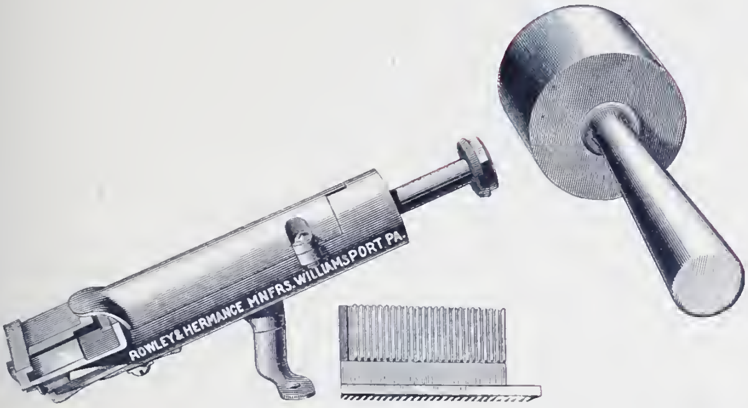
ABOVE cut represents our Improved Sash Dovetailing Machine, to which we would call the especial attention of sash manufacturers, it being the only machine in the market that forms the dovetail complete on check rail sash at one operation. It is fitted on one side with a sliding table, which is adjustable for different thicknesses of lumber, and two upright adjustable mandrels, which carry heavy saws of the proper shape to complete the dovetail at once passing through. The other side is fitted with a sliding table and three mandrels, two upright and one horizontal, which carry saws and cutters suitable to form the tenon on the check at one operation. It is also fitted with a cross-cut saw on each side, to cut the lumber to the desired length before passing through the cutters. With this improvement, the work is all done on one machine, at one operation, and more perfectly than it is possible by any other method ever employed. An ordinary hand can make at least ten dovetail mortises or tenons per minute, or the joints for 750 windows per day, being the work of some 20 skilled men. We claim that this machine is superior to all others in the following particulars: 1st. It is the only machine in the market that completes the dovetailing of check sash without adjustment or change. 2d. With it an ordinary laboring man can do the work of twenty skilled workmen. 3d. It does the work much more accurately than can be done by hand or with any other machine, thereby securing great strength and stiffness. 4th. It does its part so accurately that the work can be made in stock and laid away until wanted, with absolute certainty that it will come together all right. 5th. The shoulder formed on the check rail makes the sash much stiffer than the old mode. Tight and loose pulleys 10 inch diameter by 3 inch face, and should make 900 revolutions per minute. Weight, 800 lbs. Sample of work sent on application.



Improved Blind Slat Crimper.

Swedges both ends of slats at one operation, and from 4,000 to 6,000 per hour.

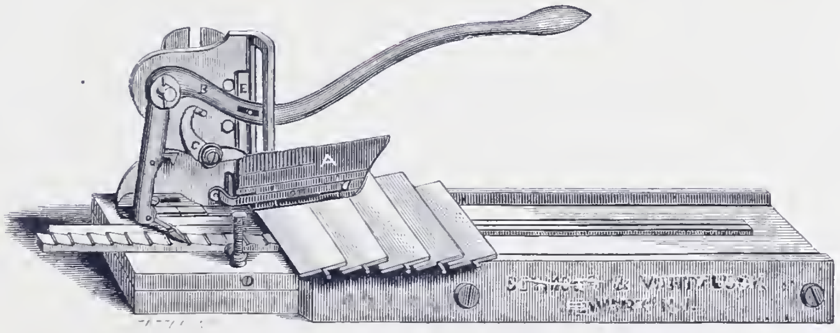
BRAD DRIVER.


ROWLEY & HERMANCE MNFRS. WILLIAMSPORT PA.

FOR bradding doors, shutters and other moulded work this machine has no equal. One blow of rubber hammer drives and sets the brad, and automatically places another in position. Either wire nails or finishing nails may be used.

More than three times the work can be accomplished with this machine as by hand.

Crosby Blind Wirer.



The Boss Double Blind Wirer.

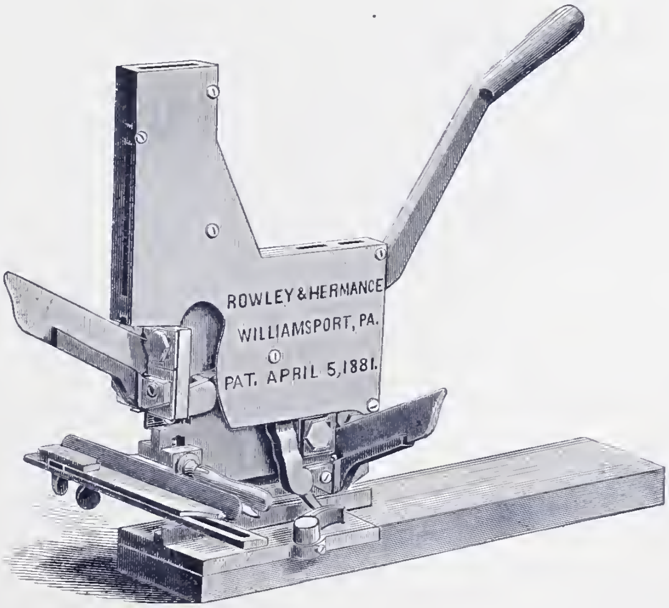
WE here offer an entirely new Blind Wirer, and one that will eventually displace all other makes of machines of its class.

It is the only machine yet invented that will wire hard wood slats and rods easily and rapidly.

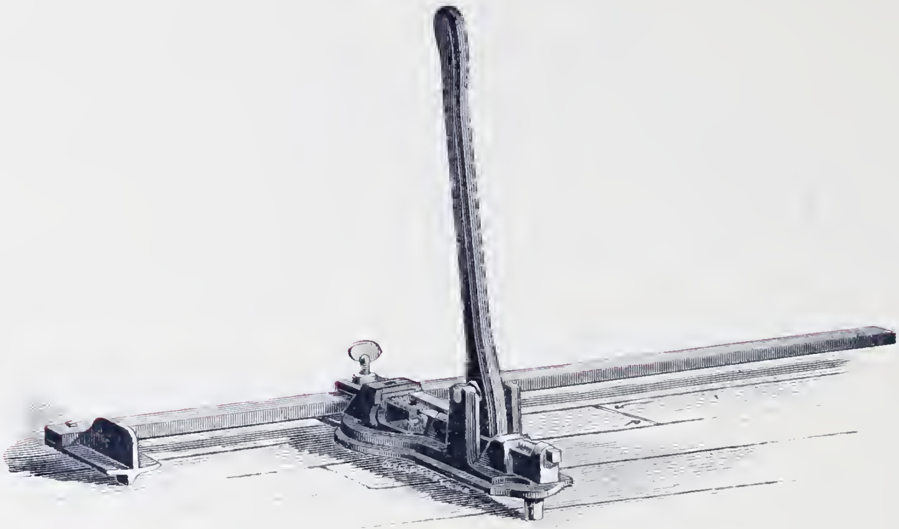
It wires both the slats and rods at one operation. The slat is placed on the upper bed and is wired by the up motion of the lever. The slat is then placed on the lower bed, and the down motion staples the slat to the rod. It saves over one half of the labor over the single machine. The staple cut-off is so arranged that two staples cannot get under the driver at the same time, a common cause of complaint with all other machines.

We warrant this machine to give satisfaction or it can be returned at our expense.

We also build it as a single wirer.

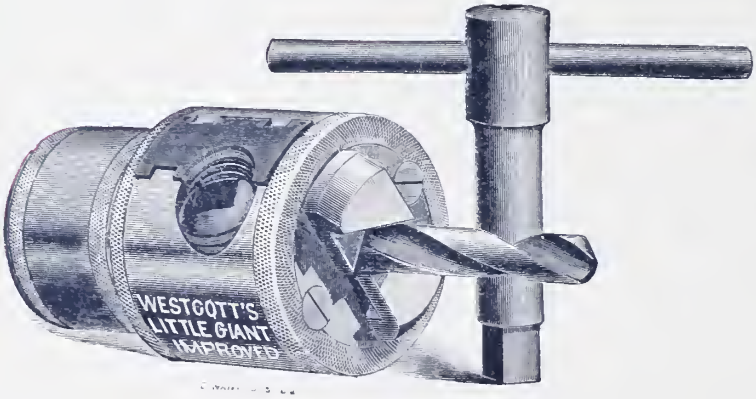

ROWLEY & HERMANCE
WILLIAMSPORT, PA.
PAT. APRIL 5,1881.

BLIND ROD CUTTER.



A VERY simple and complete device for cutting the ends of blind rods. It will cut two ends at once, leaving them perfectly smooth, and is provided with a gauge for cutting any length required.

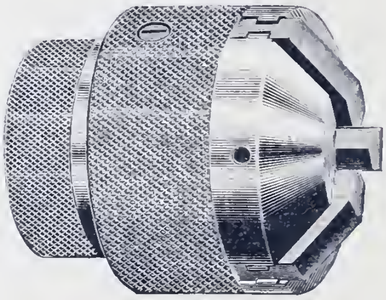
Improved Little Giant Drill Chuck.



Is full size No. 00.

No. 00,	holding from 0 to ¼ in., (cut shows full size),		Price, $7.00
No. 0,	holding from 0 to $\frac{7}{16}$ in.,	2 in. diam.,	" 8.00
No. 1,	" " 0 to ⅝ in.,	2¾ "	" 9.00
No. 2,	" " 0 to 1 in.,	3½ "	" 10.00

Acme Drill Chuck.



Is made of steel.

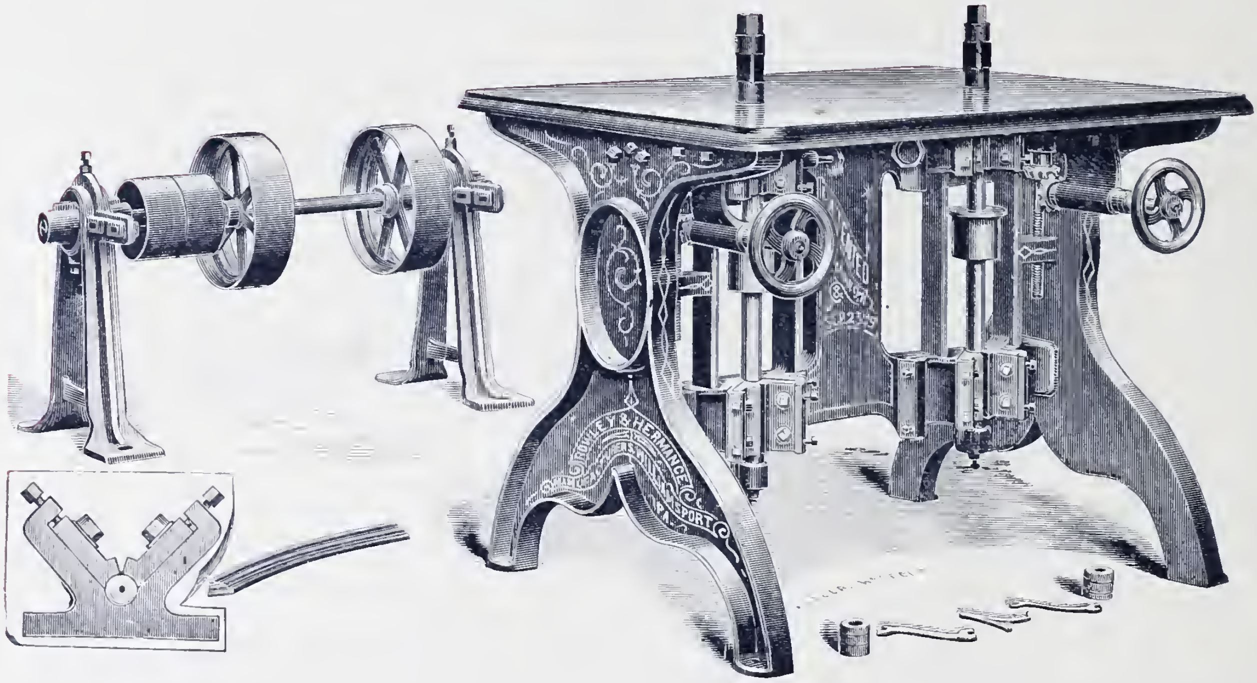
Holds drills from 0 to $\frac{9}{16}$ in. perfectly true and firm.

Price, ... $4.00

When desired, we fit these Chucks to any of our Boring Machines.

MISCELLANEOUS MACHINERY AND SUPPLY DEPARTMENT.

TWO-SPINDLE EDGE MOULDER AND SHAPER.


ROWLEY & HERMANCE WILLIAMSPORT PA.

Patented May 9th, 1871, and September 23d, 1879.

THIS cut represents a newly designed machine for the above work, and has great advantages over any like machine heretofore in use. Upright spindles, when run in the old-fashioned cap box, will either heat or tremble, causing the work to be uneven or "wavy." We entirely obviate this difficulty by the use of our Patent Sliding Cap Journal Box. Practical men will at once see the advantage of this box on this class of machinery.

It is adapted to every variety of irregular and straight work, and is an indispensable machine for saving labor in sash, door and cabinet factories and railroad or agricultural works, &c., &c. The spindles are large diameter, and are made of the best crucible steel, are hung in headstocks with connected bearings, having a vertical adjustment by means of hand wheels in front of the table, thus giving the operator control of his work.

It is a strong, heavy and durable machine, built in a first class manner throughout, and we warrant it equal if not superior to any machine of its class in use. It is also the lowest priced first class machine made.

We build it either with iron or wood table, as may be desired. If of wood, the top is made of seasoned cherry and maple strips, glued together in such a manner that it cannot warp or split.

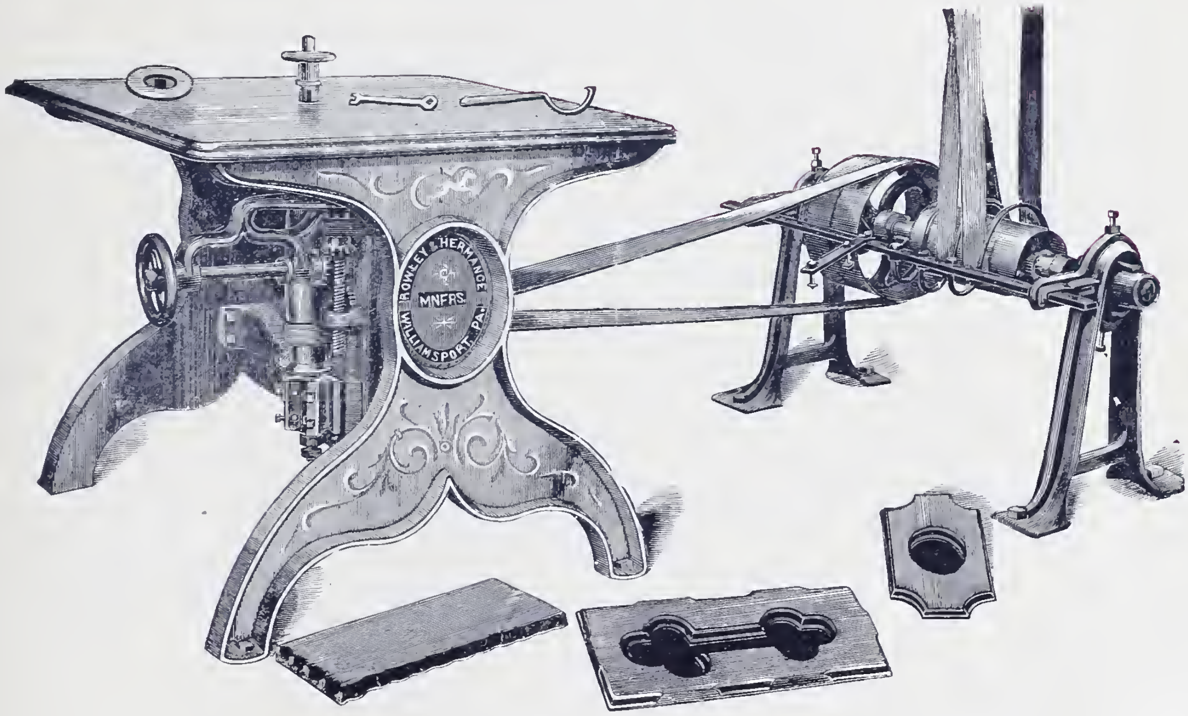
The distance between the spindles from centre to centre is 24 inches.

Size of iron top, 40 x 46 inches.

One set plain steel heads, with cutters and collars, are furnished with machine; also a floor countershaft with tight and loose pulleys.

Tight and loose pulleys, 8 inches in diameter and 4½ inches face, and should make 950 revolutions per minute.

Single–Spindle Edge Moulder and Shaper.



Patented May 9th, 1871, and September 23d, 1879.

ABOVE machine is built from the same design as the one on the preceding page, with the exception that the spindle has a reversible motion, so that when desirable the direction of the cut can be changed to run with the grain of the wood.

The patent two or three wing moulding cutters are used on this machine. They will cut right or left with the grain of the wood without changing shape of moulding.

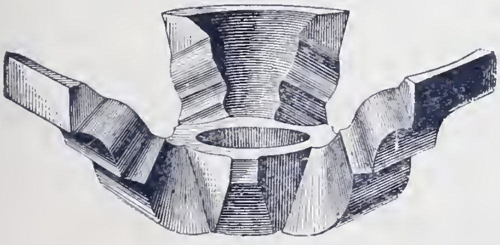
The spindle is raised and lowered by means of the hand wheel in front of machine.

It has our Patent Sliding Cap Box, (described on page 4,) which makes it the best single spindle shaper made.

The spindle is instantly reversed by a lever in front of machine, connected to the shifter operating the belts.

The spindle is made of the best crucible steel, and is arranged to receive chucks with different sized stems for heavy and light work.

We furnish with machine, stems 3/8 inch and 5/8 inch in diameter.



PATENT CONCAVE MOULDING CUTTER.

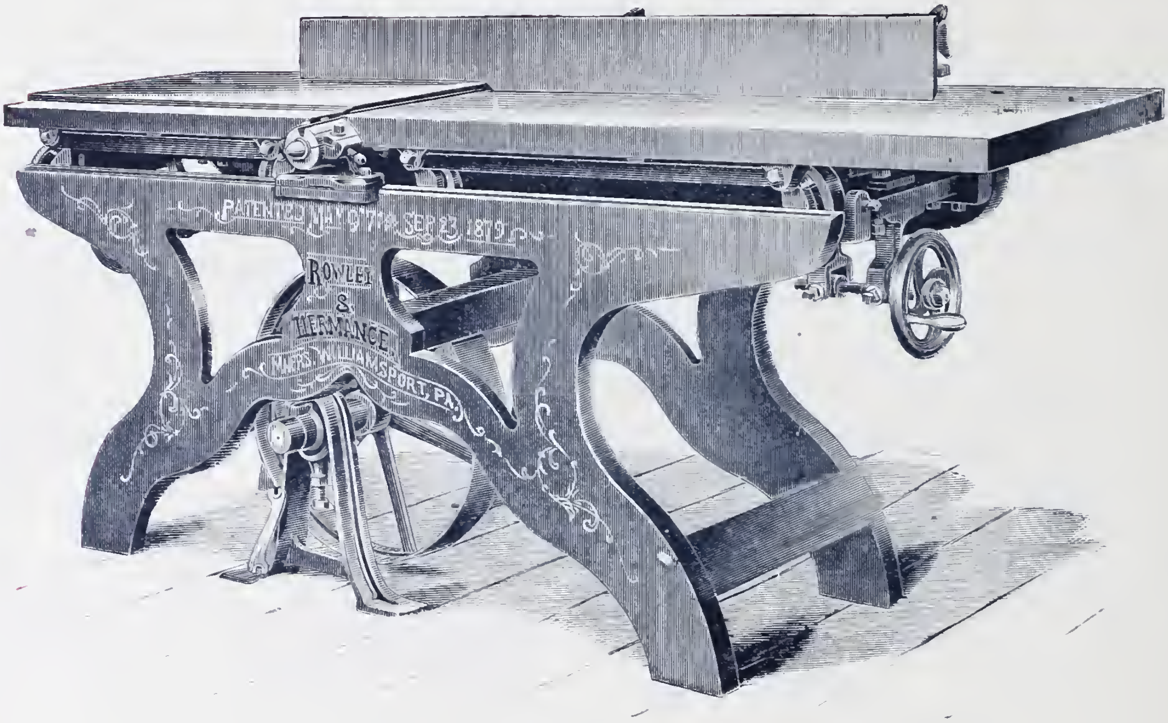
We build it either of wood or iron tops, as desired.

The size of the table is 40 x 46 inches.

The countershaft is made to receive two driving belts on one tight and two loose pulleys. One belt is open, and one is a cross-belt, so arranged as to run the cutter-head with the grain of the wood, by the use of a belt-shifter.

The three pulleys (two loose and one tight) are 8 in. diameter, the two loose are 6 in. face, and the tight pulley is 3 in. face, and should run about 1000 revolutions per minute.

IMPROVED HAND PLANER OR JOINTER.



Patented Sept. 23, 1879. Additional Patent pending.

HAND PLANERS are now being introduced into nearly all the best wood-working shops, from the fact that their value as labor-saving machines has not before been fully understood. It is capable of a great variety of work, such as planing out of wind, cornering, beveling, rabbeting, chamfering, squaring up, making perfect glue joints, &c., making it indispensable in sash and door, agricultural implement, furniture and car works, pattern shops, and other wood-working establishments. We build these machines in four sizes—8, 12, 16 and 24 inches wide. The tables are 7 feet long. The frame is cast in one solid piece, and is strong and substantial. The cylinder is small in diameter, made of solid forged steel, running in our Patent Three-Part Journal Box, which allows it to run at a very high rate of speed without trembling, and is slotted on two sides. Each table is adjusted independently, up and down, by means of hand wheels at each end of machine. Our improved circular adjustment for raising and lowering the table makes it almost impossible for the table to get out of position, and if once out, can be readjusted in two minutes. This is a great improvement over any other machine in the market. The tables can be drawn back for the purpose of getting at the cutters for sharpening or setting, or for cutters working in a larger circle than ordinary knives, without changing depth of cut. It is provided with an adjustable gauge, which can be set square or at any desired bevel.

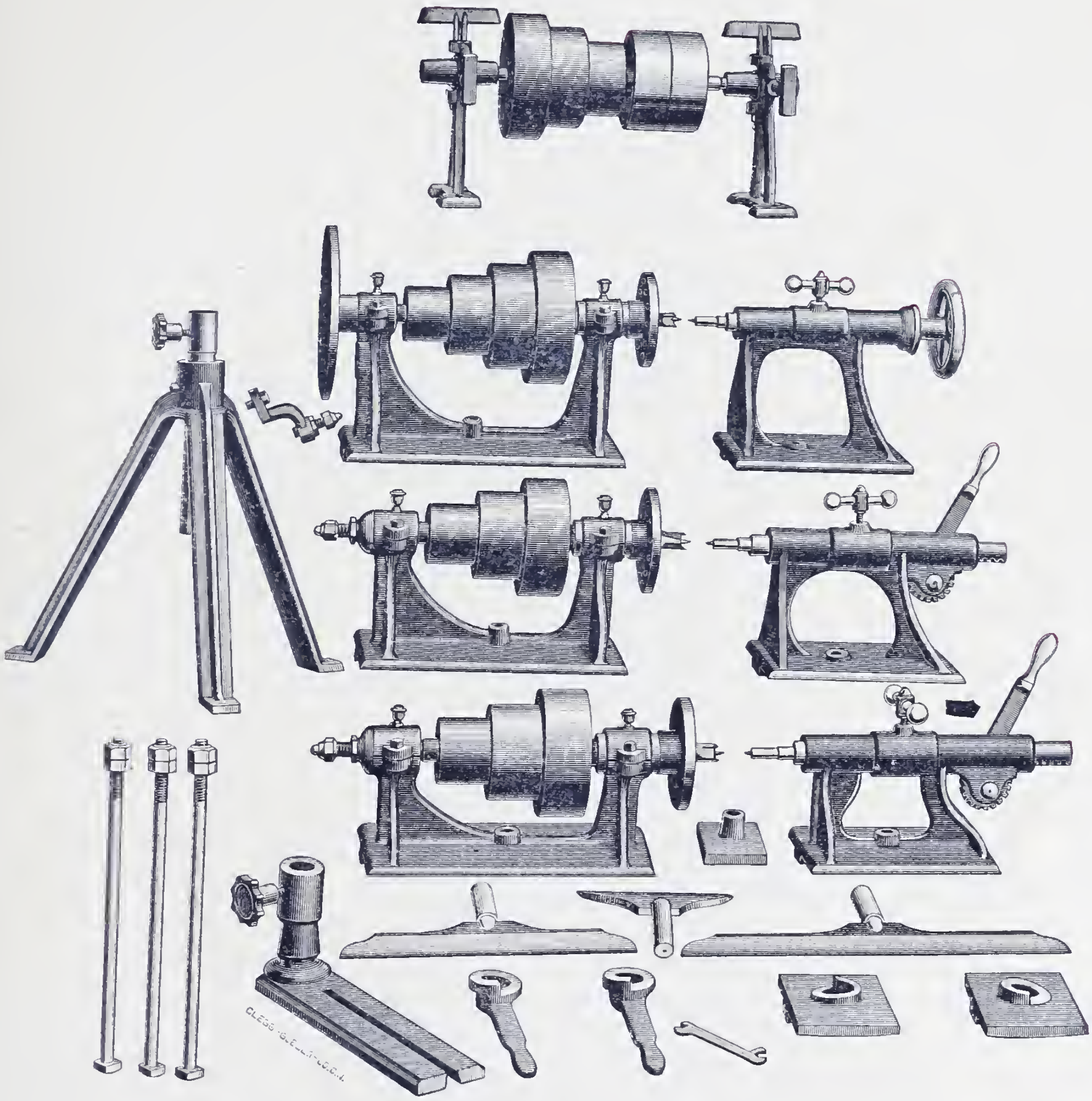
Each machine is warranted to give satisfaction. A countershaft, hangers and tight and loose pulleys are furnished with each machine.

SPEED.—The tight and loose pulleys on countershaft should run 780 revolutions,

DIRECTIONS.—Never screw or fasten the machine to the floor. The tables should be level to do perfect work. Level the planer by putting thin wedges under the feet of the machine. The belt on the cylinders should be endless, light and of even thickness, without any hooks, rivets or lacers. The laps should be cemented, and it will last longer, cylinder will run better and do smoother work. Belts on cylinder should be 3½ inches wide.

Tight and loose pulleys 8 inches diameter by 4 inches face.

IMPROVED WOOD TURNING LATHES.



WE submit new cuts of our Improved Wood Lathes to the inspection of the most critical mechanic, believing that comparison with other makes will show the advantage of our lathes.

The Quick Return tail stock is an important improvement, as small work can be more quickly centered and removed after it is finished than by the old style screw tail stock.

This improvement will be appreciated in furniture, sash and door factories, &c , &c., as it often takes more time to adjust and remove the small pieces than to turn them.

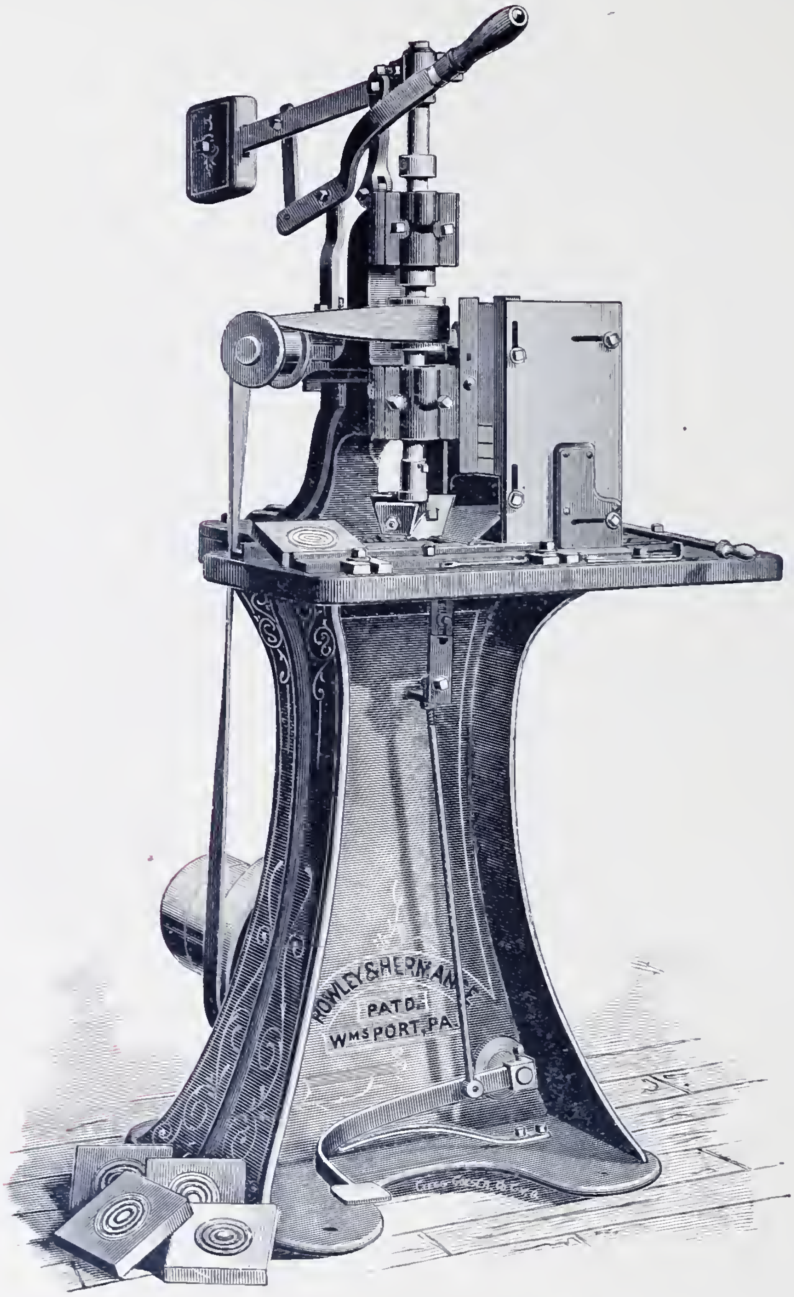
Each lathe is furnished with one post, three rests (short, medium and long), one face plate, one spur and one hollow centre, two eccentric plates and levers, and three rods for holding head and tail stocks and post in position.

We build these lathes either with the common screw tail stock, or Quick Return, as ordered.

The cones are made of cherry, and are accurately balanced.

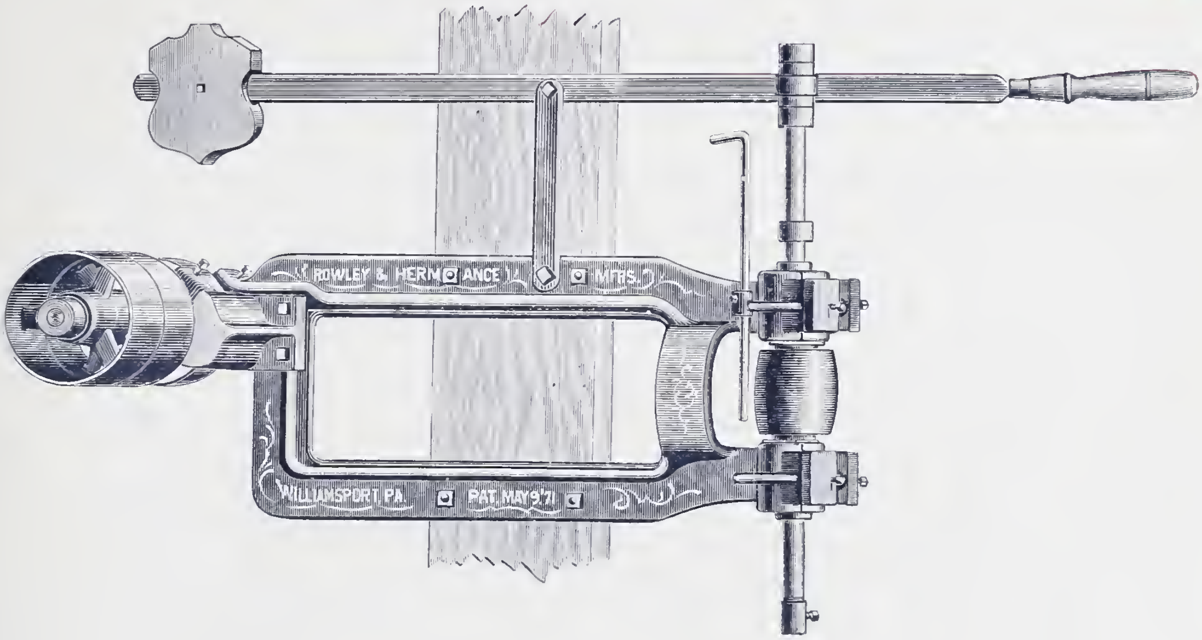
The cut of the 20-inch lathe shows the rear end face plate, which is furnished at extra price.

CORNER BLOCK MACHINE.


ROWLEY & HERMANCE
PAT'D.
WMS PORT, PA.

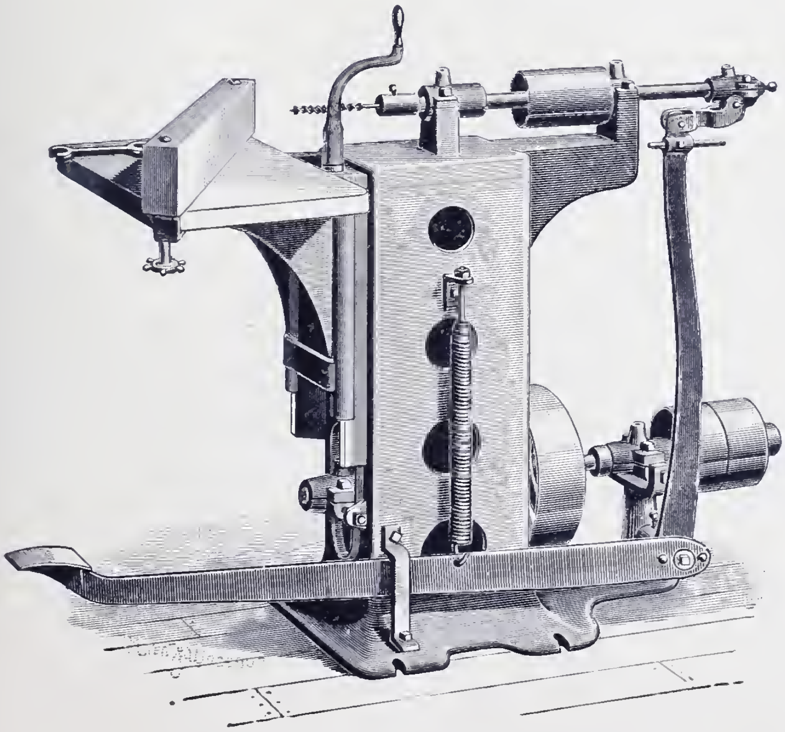
THE accompanying cut shows an entirely new machine for making corner blocks, it being so constructed as to do its work very smoothly and rapidly. The cutter head is attached to the upright spindle, and is fed to the work by means of a weighted lever, as shown in the cut. Different patterns of blocks can be made by the use of suitable cutters. The blocks are placed in a hopper which may be adjusted to suit any required size, and are fed out from the bottom to the proper place under the cutter head by a hand lever, and firmly held while the work is being done by a clamp operated by a foot treadle, and is then passed out of the machine by the next block. Quite a number of blocks may be placed in the hopper at once, which is the only necessary handling. The machine is very complete, being simple and easily operated. The working parts are mounted on a frame which is cast solid, thus making it very firm and strong. We furnish with each machine one head and cutter for making one style of block. The tight and loose pulleys are 8 by 4 inches, and should make 750 revolutions per minute.

New Pattern Post-Boring Machine, with Countershaft.



FOR bracket and Job work. A very convenient Boring Machine for any purpose; almost indispensable in any mill. Pulleys on countershaft, 6 in. diameter by 3 in. face, and should run 800 revolutions per minute.

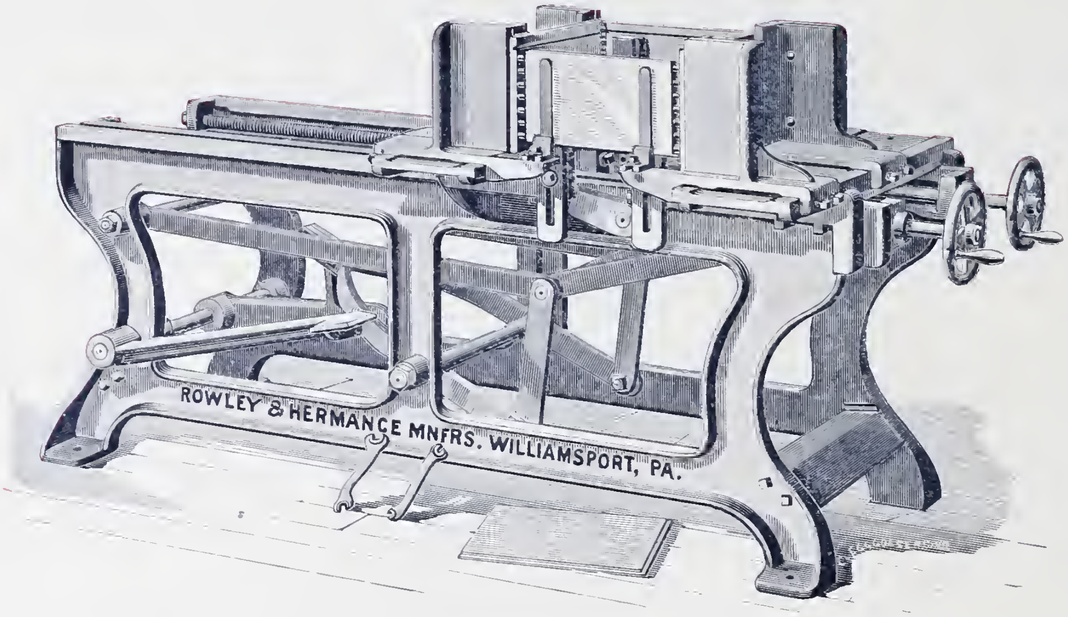
Horizontal Boring Machine.



WILL bore holes 4½ inches deep or less. The table is glued up of strips of hard wood, and is 14 x 28 inches. The gauge is adjustable at any angle, and is held by clamps. The table can be lowered by hand-crank to 10 inches. The spindle is brought forward by foot lever, the depth of hole being regulated by stops attached to vertical lever.

Tight and loose pulleys 7 inches dia. by 3 inches face, and should run 900 revolutions per minute. Weight, 500 lbs.

DRAWER CLAMP.


ROWLEY & HERMANCE MNFRS. WILLIAMSPORT, PA.

THE above cut represents a new and most complete machine for clamping drawers for all kinds of furniture work. It is simple, easily operated, quickly adjusted and very powerful.

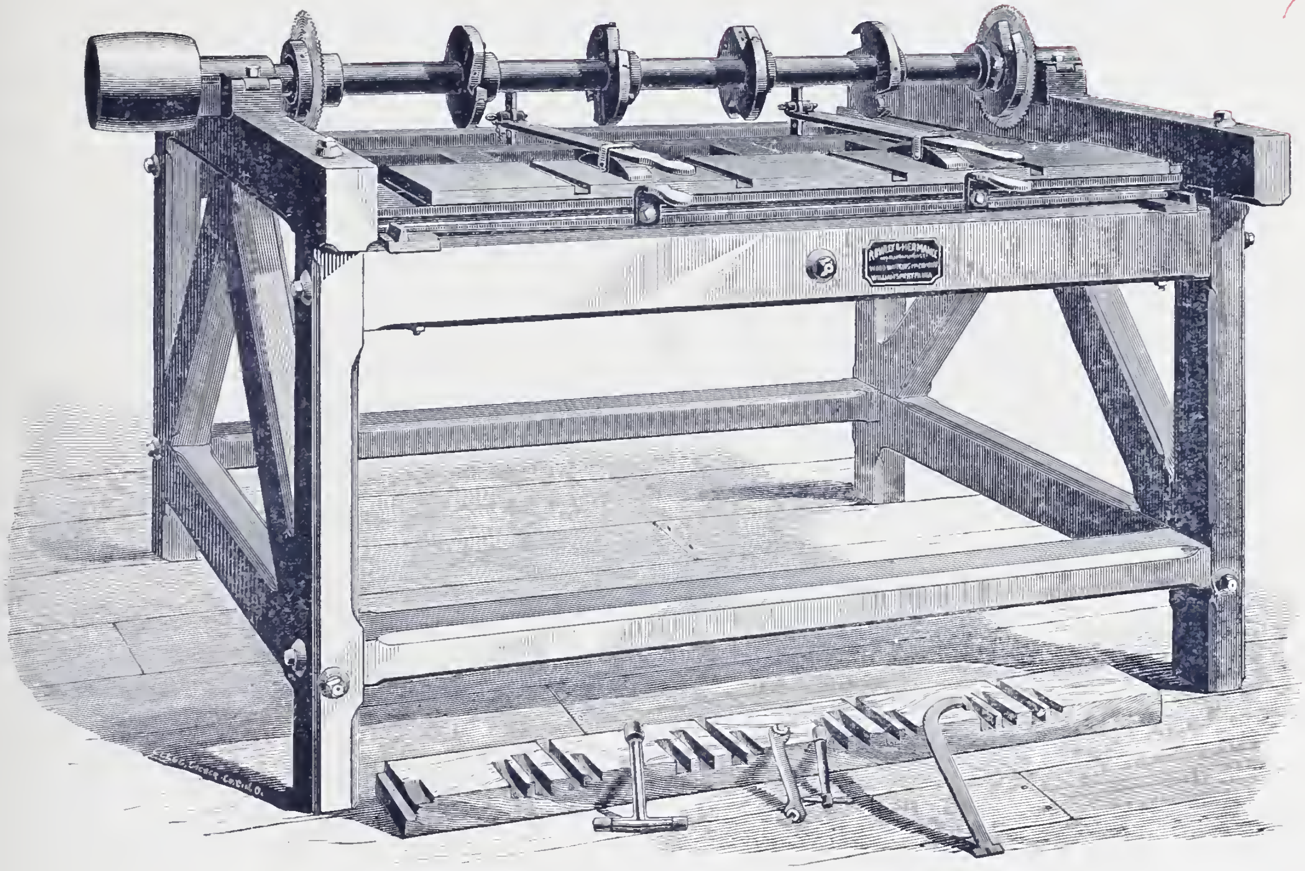
It consists of a strong, well balanced frame, on which are mounted two plates; one is stationary, and the other slides, by means of two screws operated by hand wheels, a distance sufficient for the length of any drawer. On these are placed upright pieces which may be adjusted for any width of drawer, and which support the front, back and ends, at the same time bringing each piece in its proper position.

The pressure is applied by a system of levers actuated by a treadle convenient to operator, as shown in cut. After the drawer has been clamped, the machine will instantly release it by slightly lifting the treadle with the foot.

The upright parts are so arranged as to allow all surplus glue to fall below, thus preventing it from sticking to the machine and making rough surfaces.

It is very substantial in all its parts, not liable to get out of repair, and will clamp drawers from 3 feet 6 inches long to 2 feet wide by 12 inches deep.

NEW DADO MACHINE.



THIS Machine is designed for furniture factories—for case ends, cupboard and sink ends and any work where it is desired to cut one or more grooves at one operation. The arbor is of steel, large in diameter and runs in self-oiling boxes. The heads, five in number, are adjustable to any position on the arbor, and are fitted with our Patent Corrugated Spurs, and the bits are of such form that a shearing cut is obtained, and the usual tremble produced by the cutting knives (which is always felt when using straight knives) is entirely avoided. Sharpening the knives does not change the form of cut nor diameter of cutting circle, and they are so made that when taken out to sharpen, very little time is consumed in resetting them.

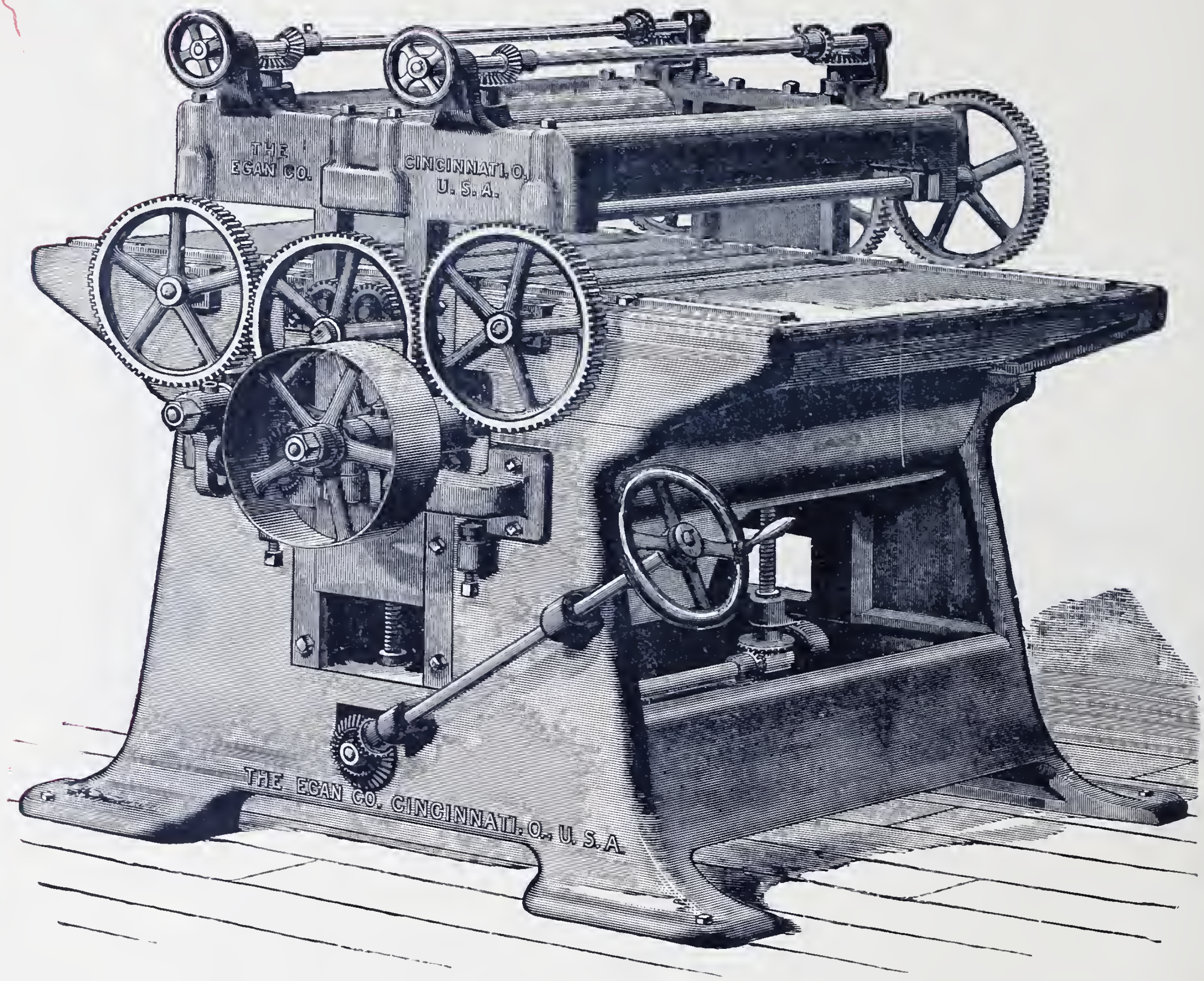
One end of the arbor is provided with a cut-off saw, attached to one of the heads and cutting on a line with the outer edge of the dado bit; this produces the proper form for one end of the piece being worked. This head and saw is in halves, and may be quickly removed and placed in any position on the arbor, and the heads not needed may be slipped along next the box, out of the way.

The other end of the arbor is also provided with a cut-off saw, mounted on a sliding or adjustable collar, and the case end in one operation is grooved, and both ends accurately cut to length.

The carriage is of iron, accurately planed on the top, and runs on carefully fitted iron V ways.

This machine may be belted from above or below, or at any angle. Pulley on arbor 6-inches diameter, 5-inches face, and should run 3,000 revolutions per minute.

Twenty-Four and Thirty-Inch Double Drum Sand Papering Machine.


THE EGAN CO.
CINCINNATI, O. U. S. A.
THE EGAN CO. CINCINNATI, O., U. S. A.

THIS cut represents a new Double Drum Sand Papering Machine. The frame is very solid, and is of the best design for strength in all its parts.

The feed consists of eight geared rolls, and is the most powerful yet put on any machine. A piece cannot stall in this machine. The four feed rolls in the center are between the two drums, so that very short stuff can be worked. All the upper feeding and pressure rolls can be instantly adjusted by the hand-wheel placed in front, which will be found a great convenience.

The pressure rolls over cylinders have independent adjustments by means of small hand-wheels, shown in cut. The patent brush attachment on this machine is the only one arranged to do any service, as it is placed inside the polishing rolls, and the work is thoroughly brushed and cleaned before going through the last pair of feed-polishing rolls. Either or both polishing drums can be vibrated at once. We are the only manufacturers who place the brush inside the feed-polishing rolls, giving the advantage that the drums can be run in opposite directions, thus securing the great desideratum of having one drum raise the fibre and the smooth drum take it off, and the brush then cleanse it before passing through the feed-polishing rolls. By this process we are enabled to do extra fine work and put a polish on wood impossible in any other way, and save, in many instances, one coat of varnish.

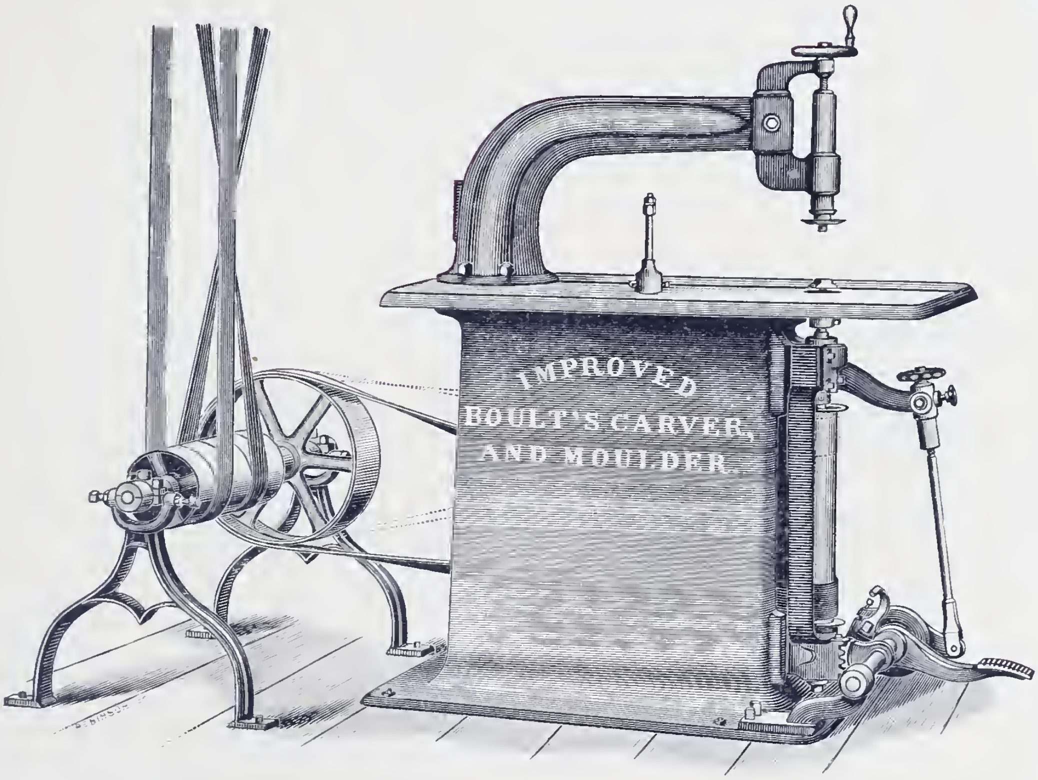
The end table can be instantly removed, and the end girths being hinged, they can be dropped down thus giving free access to the drum, so as to readily replace the sandpaper on the cylinder.

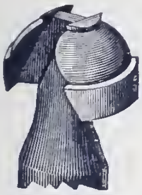
The drum can also be removed without taking the machine apart, which will be found of great convenience. The drum being of iron, turned true, the sandpaper need only be removed once or twice a week—a big saving over any other in time and material.

Furniture men of all classes, fancy cabinet makers, chair and coffin manufacturers, carpenters, planing mills, and all who want to smooth and polish wood, will find this an invaluable machine, and will derive great profit from its use. It will take in stock up to 4 inches thick.

The tight and loose pulleys on countershaft are 12 in. diameter by 6½ in. face, and should run 700 revolutions.

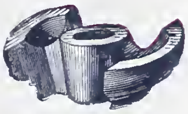
BOULT'S MOULDING AND PANELING MACHINE.





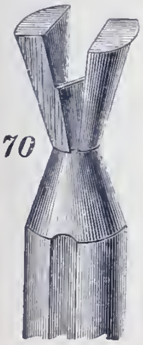
Surface Moulding Cutter.

Cutters of all styles and sizes made to order as required



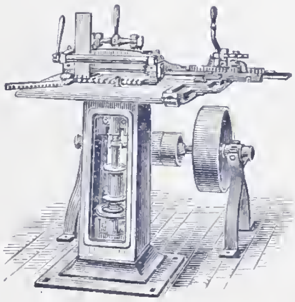
Paneling Cutter.

Boult's Independent Dovetailer.

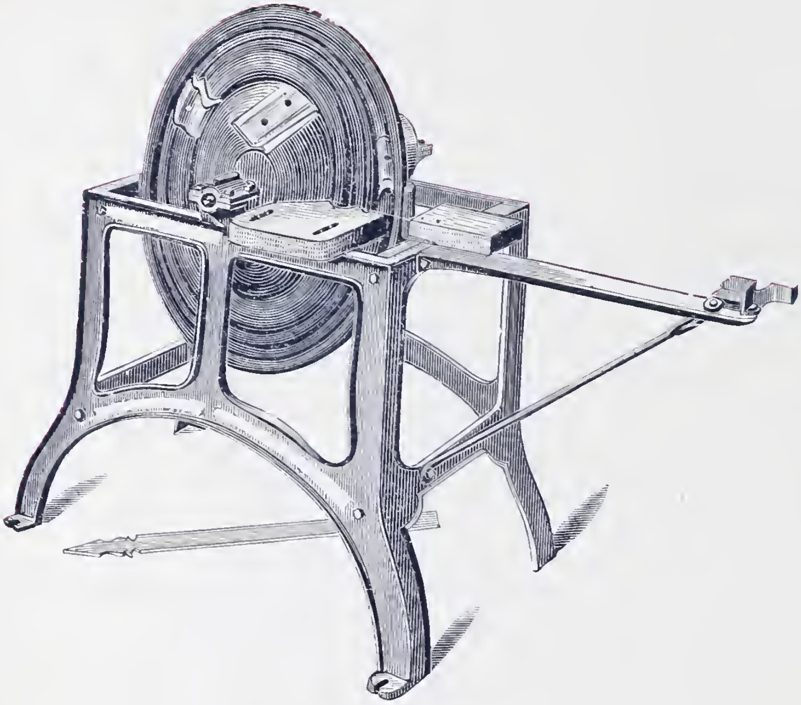


70

A SIMPLE, cheap and convenient Dovetailer. It will cut both front and side of drawer at one time, and if narrow, two fronts and two sides at one time. It dovetails with equal facility on any thickness, from ¼ to 1½ inches, and up to 13 inches in width.

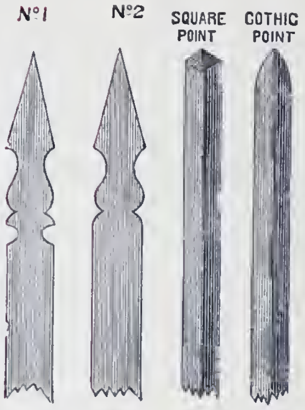


Picket Heading Machine.



Patented June, 1875.

THE BEST IN USE.



Heads of Four Styles of Pickets.

FLAT Pickets are cut, two at a time, by this machine, and as fast as a man can handle them.

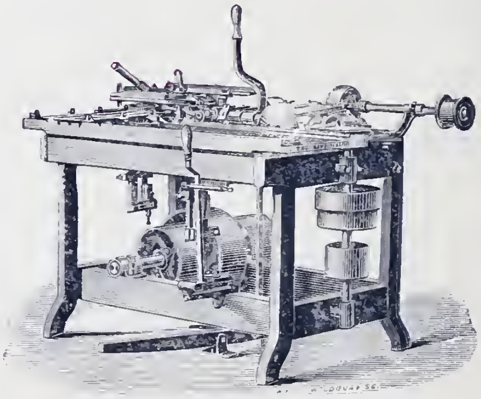
Tight and loose pulleys 8 by 4 inches, and should run 1,000 revolutions per minute.

Stimpson's Improved Dowel-Joint Machine, or Dovetailer.

IT is the most perfect machine in use for dovetailing the joints of all kinds of furniture or boxes, &c., doing the work with great dispatch and the most exact precision, and making uniformly a very nicely fitting and strong joint. It retains its adjustment, cutters are easily sharpened, and it works with accuracy and dispatch.

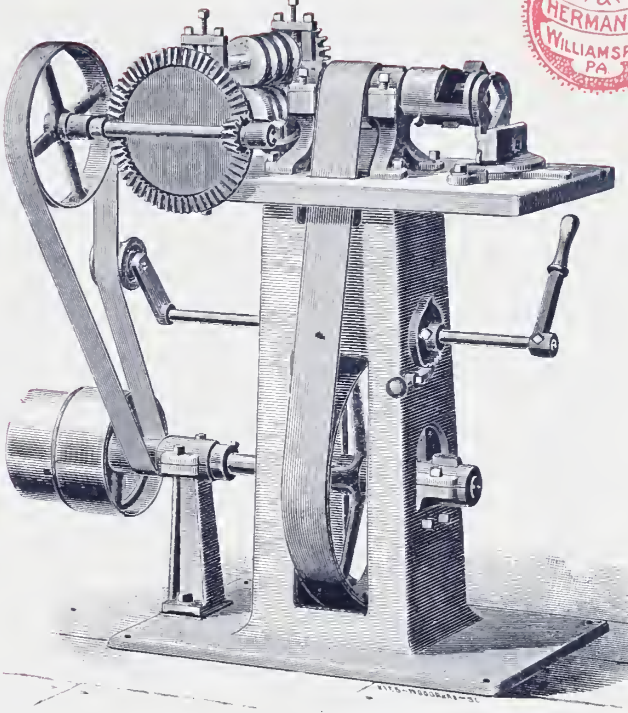
It consists of a cut-off saw, a hollow bit for forming the pins, a grooving cutter, a cutter to cut out between the pins, a bit for making the holes for the pins, and cutters for making the curved joint,—all the work being done by a rotary motion.

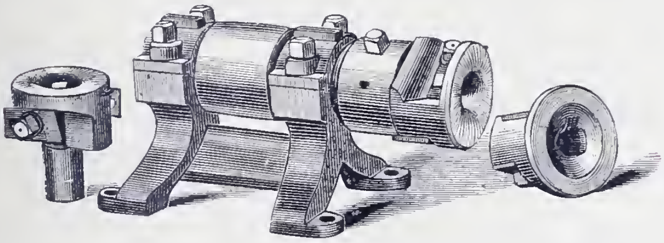
On the countershaft are 10-inch pulleys, 4-inch face, tight and loose, which should make 650 revolutions per minute.



Patent Rod, Pin and Dowel Machine–Power Feed.

IT has a hollow arbor with head and cutters revolving around the rod, and cutting it true and smooth. Has a guide in front to keep the stick in position to be worked. The feeding rolls are back of head and carry the stuff out. These rolls are provided with grooves made to fit the finished sizes of the rods. We build three sizes: No. 6 to work 3 inches and under, No. 5 to work 2 inches and under, and No. 3 to work 1⅜ inches and under. Each machine is furnished with three heads and cutters and one set of rolls, with three sizes of grooves to match the heads. The countershaft for Nos. 3 and 5 has tight and loose pulleys 8½ inches diameter by 3½ inches face, and should make 600 revolutions for the No. 3, and 500 revolutions for No. 5; No. 6 has 8½ inches diameter by 5 inches face, and should run 675 revolutions.

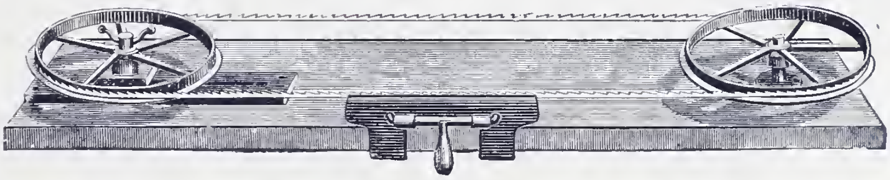


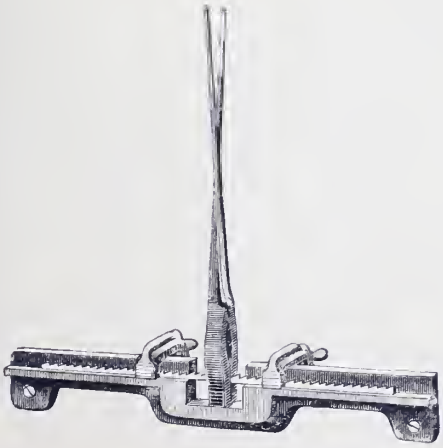


Hand–Feed Dowel Machine.

BAND SAW FILING APPARATUS.

ONE of the wheels is stationary, the other is set in a slotted iron plate, and can be moved to the length of the saw. The vise is nineteen inches long and tightens by eccentrics.



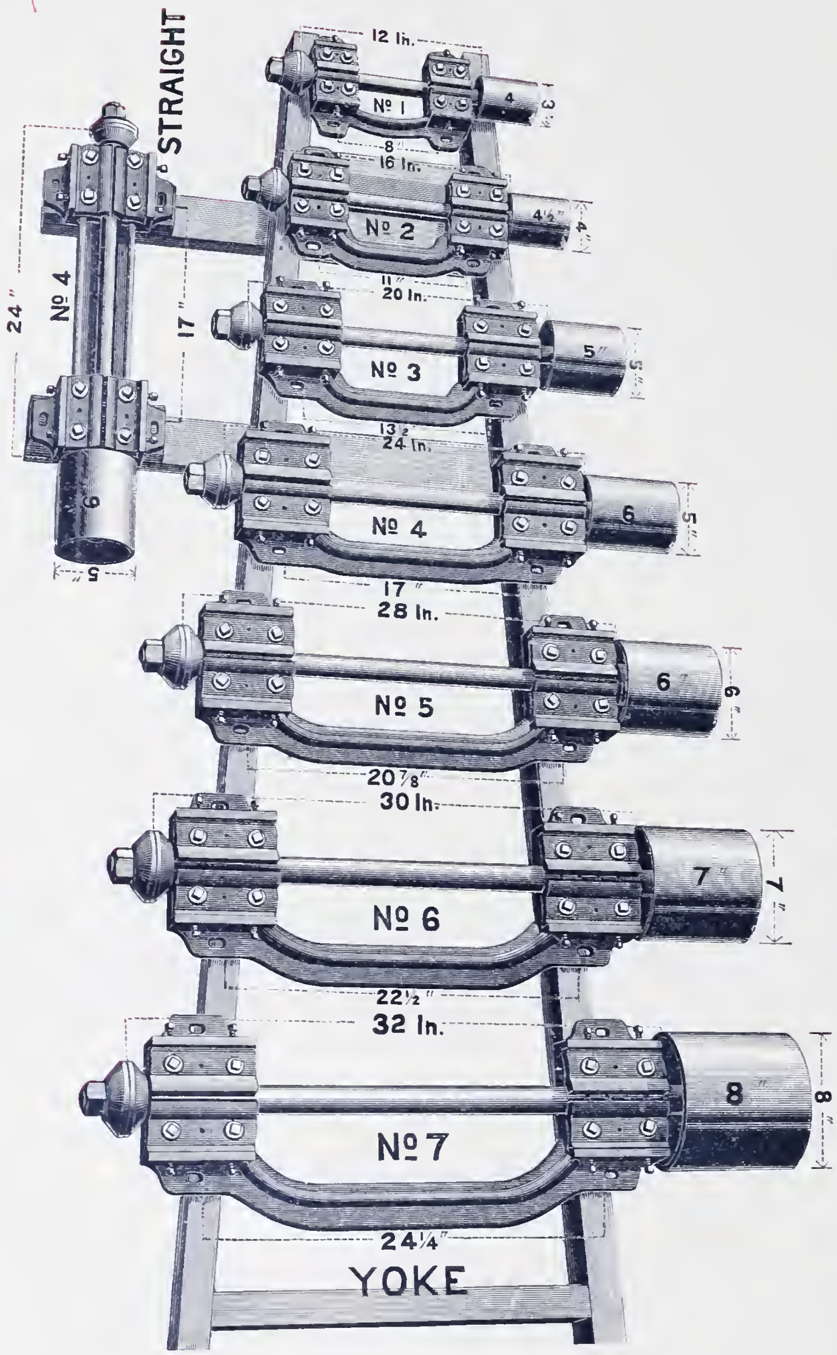


Welding Apparatus.

DIRECTIONS FOR BRAZING BAND SAW BLADES.—1st. Wash the hands well from grease or even sweat. 2d. File the two ends of blade to a bevel, so that the two thicknesses together will not be thicker than the rest of the blade. Do not file exactly to a feather edge, but file a slight shoulder for the ends to rest under. 3d. Adjust ends in vise, so that the teeth will match; also, see that the back is parallel with the vise, and that the ends are so that the tongs will hold them over depression in the vise. 4th. Place a small piece of silver solder, washed with muriatic acid, between the ends of the saw, and also wash the ends of the saw with muriatic acid. The silver solder must be thin as paper, and must just cover the beveled parts. 5th. Heat your welding tongs to a red heat, and let one end rest on the depression of the vise, and squeeze the ends until the silver is well melted, and let the blade cool gradually. File the joint very smoothly, but don't hammer or twist the blade too much. The muriatic acid will be improved by a few small pieces of zinc.

ROWLEY & HERMANCE WILLIAMSPORT PA.

NEW PATENT SAW ARBORS.

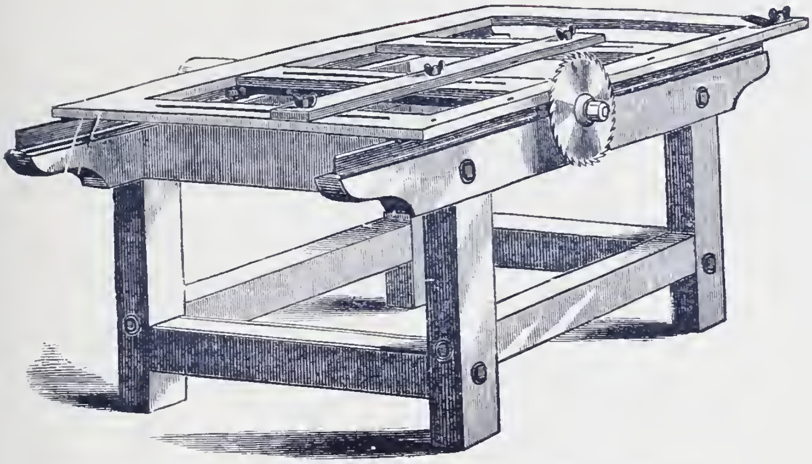


We present new cuts of our Yoke and Straight Saw Arbors, claiming for them that they are the heaviest and best arbor in the market. The mandrels are of steel, turned perfectly true and accurately balanced. They run in our patent "Common Sense" Three-Part Journal Box, which is self-oiling and is babbitted with the best genuine metal. It is the best box ever made for a saw mandrel.

	Diam. of Arbor at bearing.	Size of Hole in Saw.	Size of Saws to be used.	Speed.	PRICE.
No. 1	1 in.	1 in.	10 in.	3600	$10 00
No. 2	1 1-16	1 "	12 "	3000	12 00
No. 3	1⅜ in	1⅛ "	16 "	2200	14 00
No. 4	1½ "	1¼ "	20 "	1800	16 00
No. 5	1½ "	1¼ "	24 "	1600	18 00
No. 6	1⅝ "	1⅜ "	28 "	1300	20 00
No. 7	1⅝ "	1⅜ "	32 "	1100	24 00

The pulley can be placed between the journals on the yoke box.
In ordering, state which style of mandrel is wanted—Yoke or Straight.

Box Board Edging Saw.



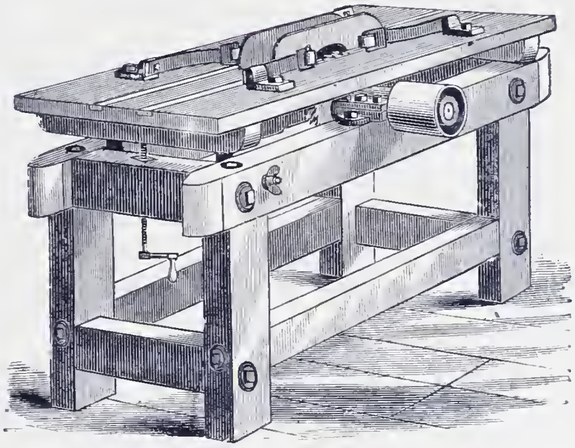
ARBOR is made of best cast steel, 1½ inches diameter.

Pulleys 5 inches diameter by 5 inches face, and should run 3,000 revolutions per minute.

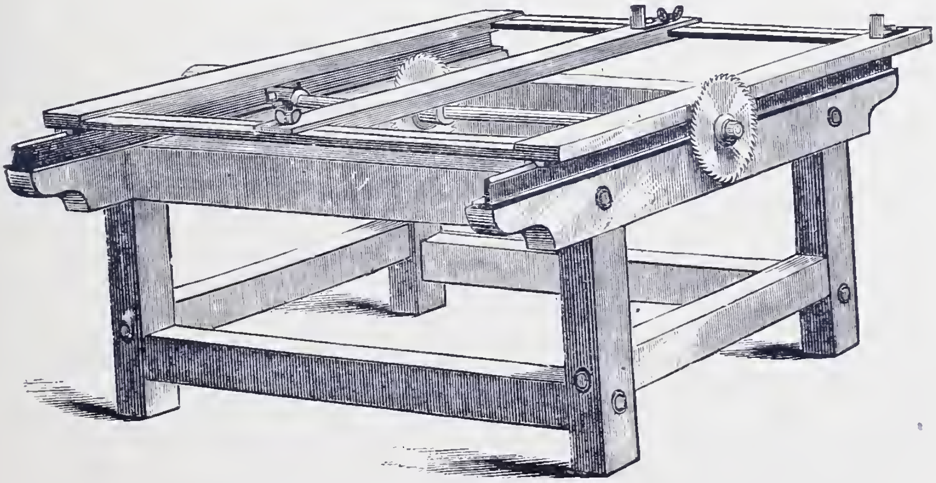
Box Board or Hand Matcher.

WE here present a machine that has two sets of saws or cutters on same arbor—one for grooving, the other for tonguing—and will work up to 1¼ inches thick.

Pulleys 4 by 5, and should make 3,000 revolutions per minute.



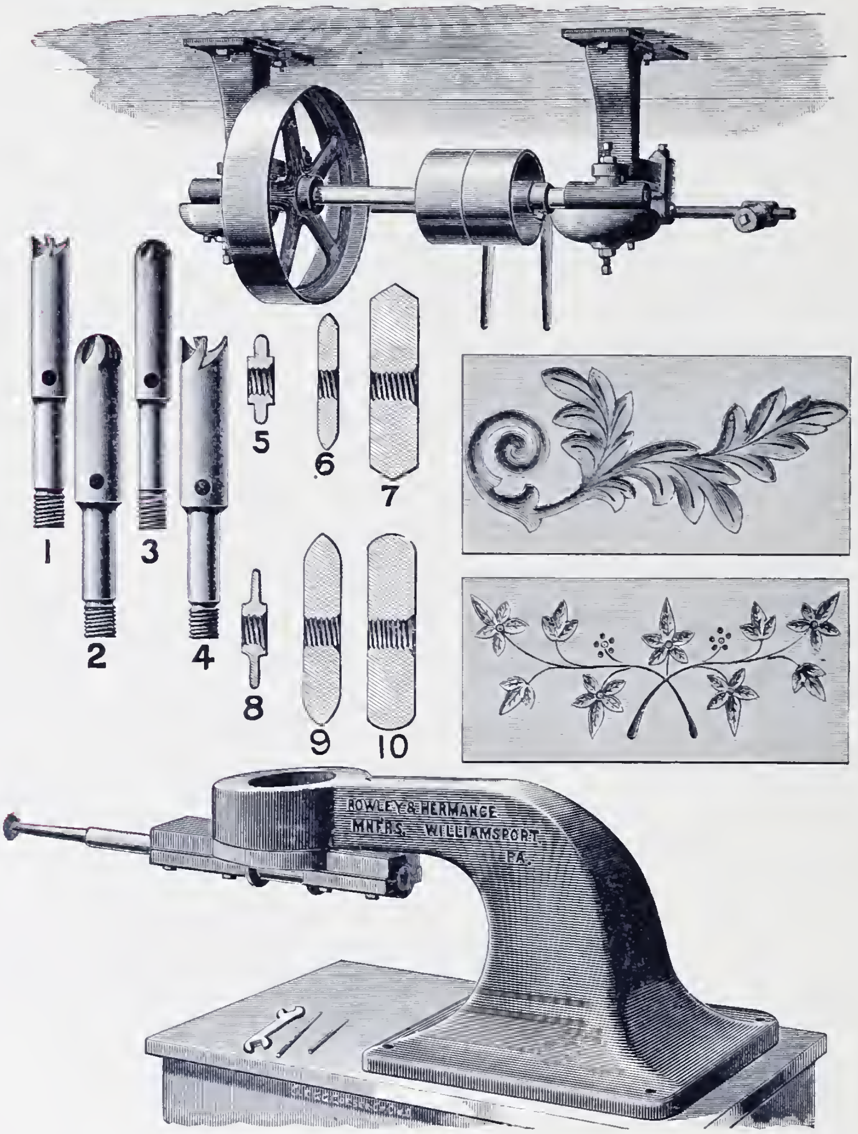
Box Board Double Cut-off Saw.



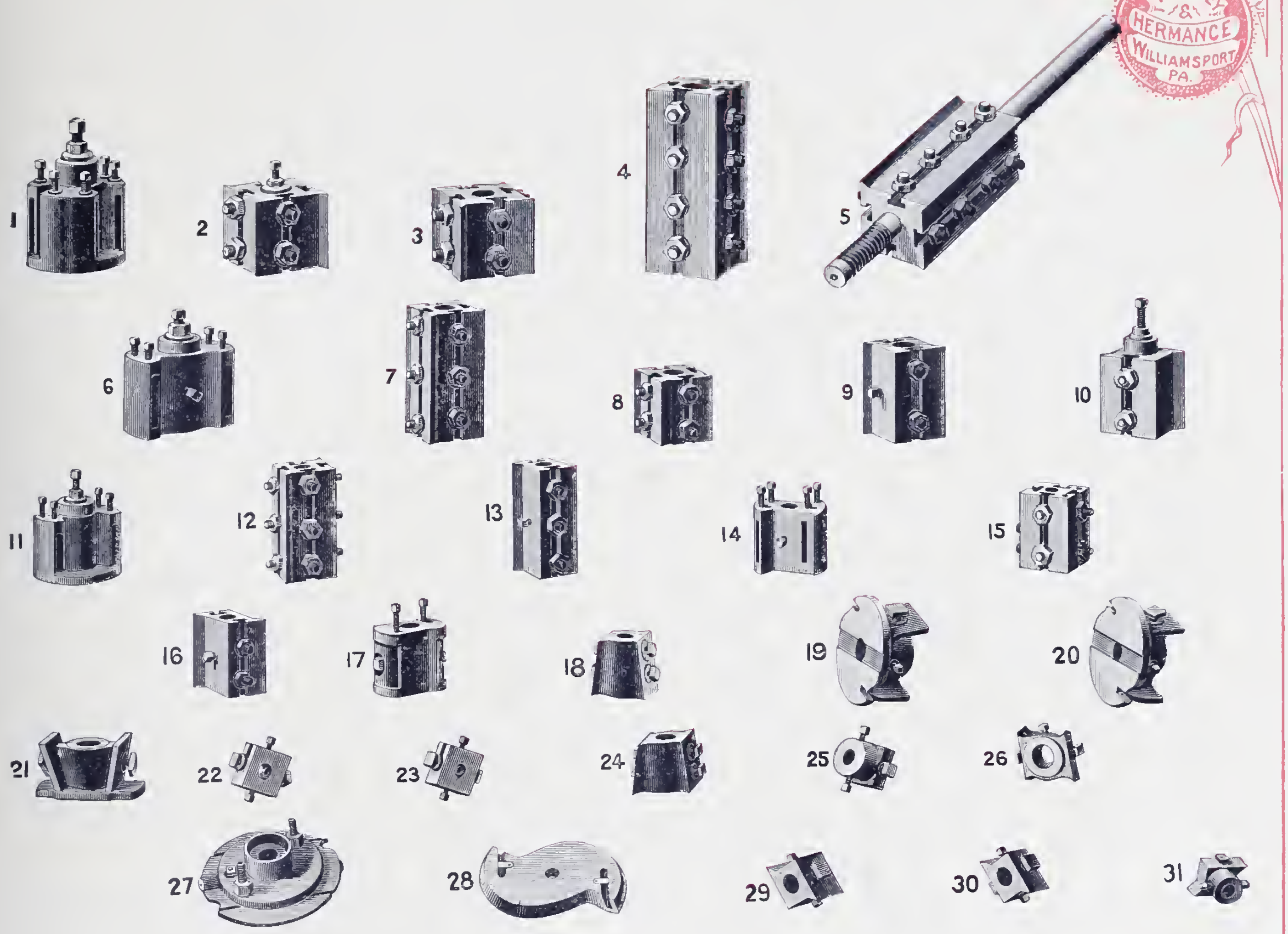
FOR cutting both ends of the stuff at the same time. One saw is on an adjustable collar, which can be readily changed from one length to another.

Pulleys 5 by 5, and should run 3,000 revolutions.

No. 1 IMPROVED CARVING MACHINE.



THIS Machine is designed for furniture manufacturers, organ builders, and all other cabinet-makers who desire to beautifully ornament their goods and reduce the cost of so doing by hand. The improvement on this machine consists in its having the bottom part of box on the upper side, so that the belt always pulls into the box instead of upon the cap. These boxes are made on a yoke, which is turned and fitted to the under side of the overhanging arm of machine, thus enabling the operator to turn the spindle in any direction he may desire to accommodate his work. When turned out straight, it gives a very large range, being thirty-six inches from cutter to base. By having the caps bolt up from the under side, the operator is enabled to hold his work up square, as cap projects down no further than diameter of cutter. The spindle and pulley are made of one solid piece of steel, pulley having wide lips and filling between boxes in yoke. Ten Cutters accompany each machine, as shown in cut, carving any variety of wood, and special Cutters for any design will be furnished when wanted. The counter has 6-inch tight and loose pulleys, and should run 1,100 revolutions per minute.

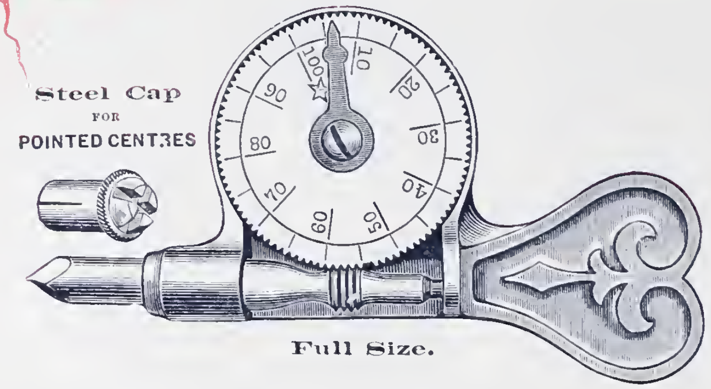


Heads for Machines Manufactured by Rowley & Hermance.

			Diameter Cutting Circle.	*Length of Bit.*	*Width of Bit.*	*Price.*
No. 1.	Steel.	Matcher Head, 3 wing, Gold Dust,	5¾ in.	4¼ in.		$11 00
No. 2.	"	Jointing Head. 4 slotted, "	"	6	3 in.	13 00
No. 3.	"	Side Head, Nine and Ten Inch Moulders	5¾ & 6	4¼	3¾	12 00
No. 4.	"	Top Head, Ten-Inch Moulder	6	10¼	"	18 00
"	"	" Nine-Inch Moulder	6	9¼	"	17 00
No. 5.	"	Bottom Head and Shaft, Ten-Inch Moulder, 4-slotted	6	10¼	"	20 00
"	"	" " Nine-Inch " "	6	9¼	"	19 00
"	"	" " Seven-Inch " "	4¾	7¼	3	16 00
"	"	" " Six-Inch " 2-slotted	"	6¼	3	10 00
"	"	" " Four-Inch " "	"	4¼	3	9 00
No 6.	"	Solid Cap Head, Nine and Ten-Inch Moulder	5¾ & 6	4½	3	10 00
No. 7.	"	Top Head, Seven-Inch Moulder	4¾	7¼	3	14 00
No. 8.	"	Side " " "	4¾ & 5	3½	3	7 00
No. 9.	"	Beading and Moulding Head, Sweepstakes	4⅝	5	3¼	7 50
No. 10.	Mal.	Jointing Head, Sweepstakes Planer	4⅞	4	3	10 00
No. 11.	"	Matcher " " "	4⅞	4	2¼	9 00
No. 12.	Steel.	Top Head, Six-Inch Moulder	4¾	6¼	2¾	12 00
No. 13.	"	Bottom Head, " "	"	"	"	8 00
No. 14.	Iron.	Solid Cap Head, Four and Six-Inch Moulder	4¼	3½	2¼	6 50
No. 15.	Steel.	Top Head, Four-Inch Moulder	4½	3	4	9 00
No. 16.	"	Side " Four and Six-Inch "	"	4	3	7 50
No. 17.	Iron.	Loose Cap Head, " " "	"	3	2½	7 50
No. 18.	"	Panel Head, " " "	"	3½	3	6 50
No. 19.	"	No. 3 Tenoner Head	6¼	4	3½	10 00
No. 20.	"	No. 2 " " outside	"	4¼	3⅞	10 00
No. 21.	"	" " " inside	"	3⅜	4	8 00
No. 22.	"	" " Cope Head	4¼	......	1⅛	3 00
No. 23.	"	No. 3 " "	"	......	"	3 00
No. 24.	"	Top Head, Sash and Blind Jointer	5⅛	3½	3	6 50
No. 25.	"	Beading Head, Blind Rabbeter	4	3	1	5 00
No. 26.	"	Rabbeting " " "	4½	3	1¼	5 00
No. 27.	Steel.	Dado Head and 5 Sets Cutters	8	......	......	30 00
No. 28.	"	Panel Raiser Head, Right Side	......	......	......	11 00
No. 29.	Iron.	Top and Bottom Head, Slat Planer	4	2¾	2¼	6 50
No 30.	"	" " " "	4	2¾	1⅝	6 50
No. 31.	"	Side Head, Slat Planer	3½	2⅝	1⅛	5 00

The above prices are for Heads without knives. The bolts are of the best steel, with finished and hardened nuts.

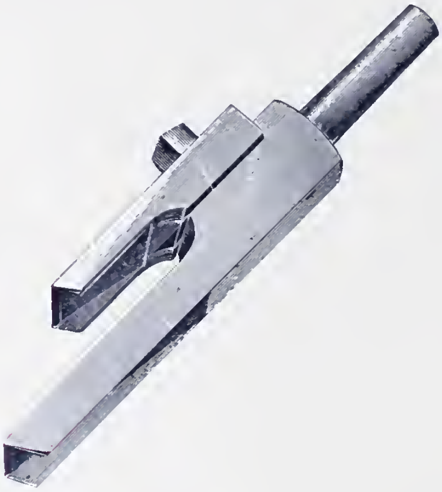
SPEED INDICATOR.



Correct and reliable. Any speed can be accurately counted.

Price, . . $2.00

Patent Frame Mortise Chisel.

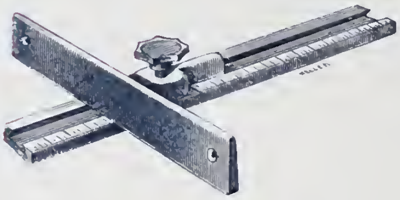


We here present an entirely new and novel Chisel for Mortising in Sash Pulleys. It consists of two chisels, both operating at once, the long or case chisel mortising through the pulley stile, while the short or flange chisel, being wider than the other, mortises for the flange on the pulley at the same time, thus finishing the pulley stile in one handling ten times as fast as by the old method of doing the work by hand. We make them to fit any size of pulleys desired, and carry them in stock to fit the following regular sizes of 2 inch sash pulleys: Long chisel, 7-8 and 1-32 in. wide; short chisel, 1 1-16 in. wide. Distance from face of long chisel to cutting edge of short chisel, 7-8 in.

In ordering, give name of maker of mortiser.

Price, . . . $10.00

RIP SAW GAUGE.



Cheap, accurate, strong and durable guage, for Planing Mills, Box and Furniture Factories, &c. The indexed guide-plate can be made to suit width of table. The gauge is held firmly by means of hand wheel bolt, nicely fitting the dovetailed guide-plate.

Price, . . $8.00

Cole Pat. Mortise Chisel.

THE BEST
MORTISING CHISEL
IN THE MARKET.
SAVES ITS COST IN ONE WEEK.

Draws the chips perfectly.

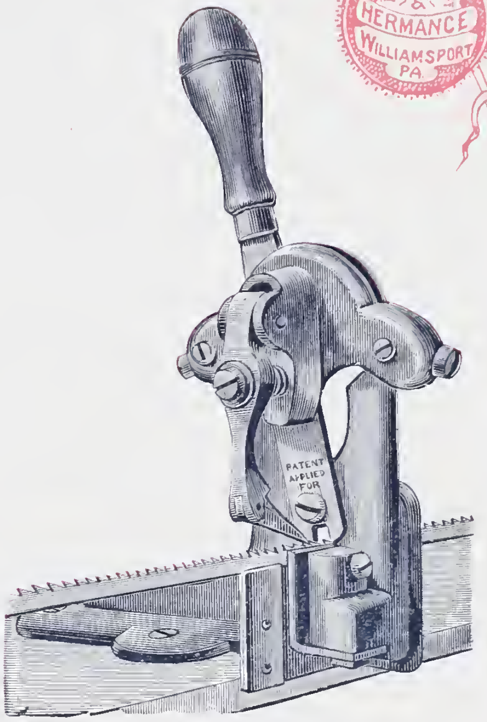
Price, . . $1.50.

In ordering, state size wanted and whose make of mortiser you use.

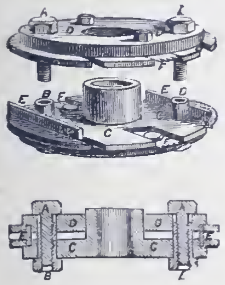
ROWLEY & HERMANCE WILLIAMSPORT, PA.

LIGHTNING SAW SET.

A QUICK, accurate and convenient Saw Set for Band Saws, &c.



Improved Expanding Dado Head.



THIS Dado or Grooving Head is indispensable in a Planing Mill. We believe it to be the best Dado ever offered to the public. It is made of steel or brass, 8 inches in diameter, and has steel bolts, with sleeve nuts.

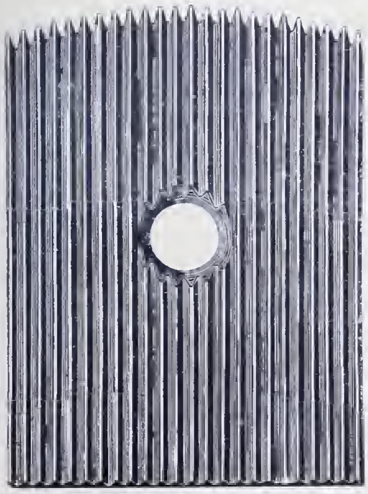
The bolts allow the head to open from 5-16 to 1¾ inches, or hold a cutter 5-16 of an inch, or any width to 1¾ inches, without loosening the nut on arbor.

It is provided with spurs, so as to cut lengthwise or crosswise of the wood.

Can be used for jointing, rabbeting or beading blinds, and grooving all kinds of work.

Five sets of Cutters furnished with each Head. Extra Cutters at additional price.

Our Patent Corrugated Spur.



$4 PER SET.

$3 PER SET.

$3 PER SET.

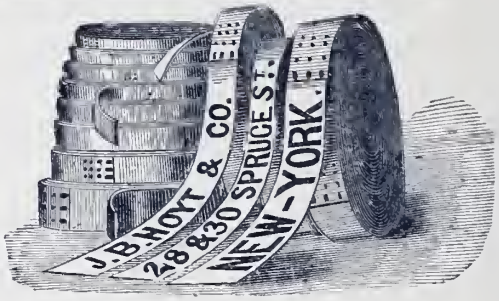
FOR Tenoning Machines, Dado Heads, &c. Will run longer than the ordinary spur, requires no filing, and saves over 100 per cent. in files and labor. When necessary, can be sharpened in five minutes on a grind-stone.

Will send on trial, postage paid. If not satisfactory, can be returned.

PRICE-LIST OF PLANING MILL SUPPLIES.

PRICE LIST OF J. B. HOYT & CO.'S WHITE OAK TANNED BELTING, PER RUNNING FOOT.

1 Inch	$0 10	7 Inch,	$0 90	23 Inch,	$3 37	SOLID.	
1¼ "	0 13	8 "	1 02	24 "	3 54	¼ Inch,	$0 10
1½ "	0 17	9 "	1 15	26 "	3 92	5/16 "	0 14
1¾ "	0 20	10 "	1 29	28 "	4 30	⅜ "	0 18
2 "	0 23	11 "	1 42	30 "	4 64		
2¼ "	0 26	12 "	1 55	32 "	5 00	TWIST.	
2½ "	0 30	13 "	1 68	34 "	5 35	⅛ Inch,	$0 06
2¾ "	0 33	14 "	1 82	36 "	5 70	3/16 "	0 10
3 "	0 36	15 "	1 98	38 "	6 05	¼ "	0 14
3½ "	0 43	16 "	2 14	40 "	6 40	5/16 "	0 18
4 "	0 50	17 "	2 31	44 "	7 10	⅜ "	0 22
4½ "	0 56	18 "	2 49	48 "	7 80	½ "	0 30
5 "	0 63	19 "	2 66			⅝ "	0 36
5½ "	0 70	20 "	2 84	SOLID.		¾ "	0 46
6 "	0 76	21 "	3 02	⅛ Inch,	0 05	⅞ "	0 60
6½ "	0 83	22 "	3 20	3/16 "	0 07	1 "	0 72


J.B. HOYT & CO.
28 & 30 SPRUCE ST.
NEW-YORK

Double Bands, twice the price of single.

N. B.--In ordering, state where Bands are to run.

Lace Leather, Cut Lacings, Belt Studs, Rivets, &c.

Discount quoted on application.

NEW YORK BELTING AND PACKING COMPANY'S VULCANIZED RUBBER BELTING.

This Belting is made of heavy Cotton Duck, weighing 2 lbs. per yard, woven expressly for the purpose, and is vulcanized between layers of a patent Metallic Alloy, by which process the stretch is entirely taken out, the surface made perfectly smooth, and the substance thoroughly and evenly vulcanized.

THREE-PLY.		FOUR-PLY.		FIVE-PLY.	
Width.	Per Foot.	Width.	Per Foot.	Width.	Per Foot.
2 inches,	$0 17	4½ inches,	$0 47	8 inches,	$1 05
2½ "	0 22	5 "	0 52	9 "	1 18
3 "	0 26	6 "	0 62	10 "	1 33
3½ "	0 30	7 "	0 73	11 "	1 47
4 "	0 34	8 "	0 84	12 "	1 62
4½ "	0 39	9 "	0 95	13 "	1 77
5 "	0 43	10 "	1 07	14 "	1 92
6 "	0 52	11 "	1 18	15 "	2 07
7 "	0 60	12 "	1 30	16 "	2 22
8 "	0 70	13 "	1 42	18 "	2 52
9 "	0 80	14 "	1 54	20 "	2 82
10 "	0 90	15 "	1 66	22 "	3 15
11 "	1 00	16 "	1 78	24 "	3 50
12 "	1 08	18 "	2 02	26 "	3 85
13 "	1 18	20 "	2 26	28 "	4 20
14 "	1 28	22 "	2 52	30 "	4 55
15 "	1 38	24 "	2 80	32 "	4 90
16 "	1 50	26 "	3 08	34 "	5 25
18 "	1 70	28 "	3 36	36 "	5 60
20 "	1 90	30 "	3 64	38 "	5 95
22 "	2 12	32 "	3 92	40 "	6 30
24 "	2 36	34 "	4 20	42 "	6 65
26 "	2 60	36 "	4 48	44 "	7 00
28 "	2 84	38 "	4 76	46 "	7 35
FOUR-PLY.		40 "	5 04	48 "	7 70
2 "	$0 21	42 "	5 32		
2½ "	0 26	44 "	5 60		
3 "	0 31	46 "	5 88		
3½ "	0 37	48 "	6 16		
4 "	0 42				

Intermediate widths at proportionate prices.

Heavy 6 ply belts made to order, at an advance of twenty-five and fifty per cent. respectively on 4-ply prices.

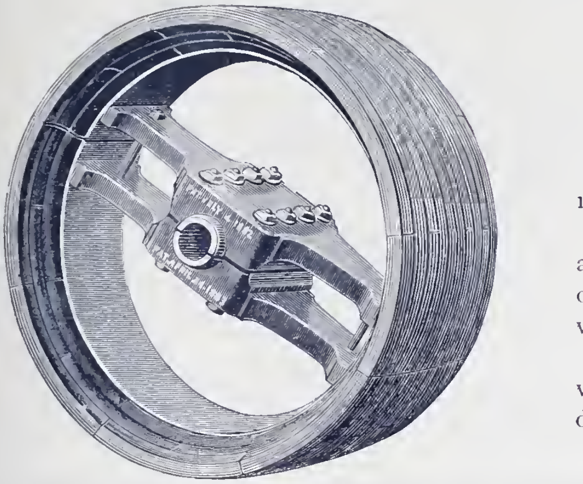
Endless Belts of any width or length made to order, at ten days' notice, at current list prices, with an additional charge for joining equal to the price of 3 feet of the belt, subject to regular discount.

Full rolls of belting, as manufactured for the trade, measure from 300 to 350 feet long; but we cut belts to order of any length required.

For belts less than 6 inches wide, "3-ply" is sufficiently strong, unless the work is unusually heavy for the width. Belts wider than 6 inches should not be less than 4-ply unless the work is unusually light for the width.

ROWLEY & HERMANCE WILLIAMSPORT PA.

DODGE PATENT WOOD SPLIT PULLEYS.



EXAMPLE SHOWING HOW TO ORDER.

One 36-inch pulley for 6-inch shifting belt, 2 7-16 bore.

One 36-inch pulley for 6-inch non-shifting belt, 2½-inch bore, net, or say crown or straight.

When ordered as above, we will furnish for a non-shifting belt a round faced pulley from ¼ to ¾ of an inch wider than the belt, or for a shifting belt, a flat faced pulley from ¼ to ¾ of an inch wider than double the width of the belt.

If instead of ordering by the belt, a certain face is called for, it will probably necessitate cutting a wider face down to the size ordered, in which case the wider face will be charged for.

PRICE-LIST.

Diam. Inches.	Face. Inches.	Price.
9	3	$ 2 50
	4	2 65
	5	2 90
	6	3 15
	7	3 28
	8	3 40
10	3	2 60
	4	2 75
	5	3 00
	6	3 25
	7	3 40
	8	3 55
	9	3 72
	10	3 90
11	3	2 70
	4	2 85
	5	3 10
	6	3 35
	7	3 53
	8	3 70
	9	3 90
	10	4 10
12	3	2 80
	4	2 95
	5	3 20
	6	3 55
	7	3 70
	8	3 85
	9	4 08
	10	4 30
	11	4 70
	12	5 10
13	3	2 90
	4	3 10
	5	3 40
	6	3 75
	7	4 00
	8	4 25
	9	4 53
	10	4 80
	11	5 20
	12	5 60
14	3	3 00
	4	3 25
	5	3 65
	6	4 10
	7	4 40
	8	4 70
	9	5 02
	10	5 35
	11	5 68
	12	6 00
	13	6 30
	14	6 60
15	3	3 10
	4	3 45
	5	3 85
	6	4 35
	7	4 75
	8	5 10
	9	5 48
	10	5 85
15	11	$ 6 18
	12	6 50
	13	6 85
	14	7 20
16	3	3 30
	4	3 65
	5	4 05
	6	4 60
	7	5 05
	8	5 50
	9	5 90
	10	6 30
	11	6 65
	12	7 00
	13	7 35
	14	7 70
	15	8 35
17	3	3 50
	4	3 85
	5	4 25
	6	4 85
	7	5 35
	8	5 85
	9	6 30
	10	6 70
	11	7 10
	12	7 50
	13	7 88
	14	8 25
	15	9 05
18	3	3 70
	4	4 05
	5	4 55
	6	5 10
	7	5 65
	8	6 20
	9	6 65
	10	7 10
	11	7 55
	12	8 00
	13	8 50
	14	9 00
	15	9 80
	16	10 70
	17	11 75
	18	13 00
19	4	4 25
	5	4 80
	6	5 50
	7	6 13
	8	6 75
	9	7 15
	10	7 50
	11	8 05
	12	8 60
	13	9 20
	14	9 80
	15	10 70
	16	11 70
	17	12 75
	18	13 80
20	4	4 45
	5	5 20
	6	6 00
20	7	$ 6 60
	8	7 15
	9	7 60
	10	8 00
	11	8 75
	12	9 50
	13	10 25
	14	11 00
	15	11 80
	16	12 60
	17	13 60
	18	14 70
21	4	4 70
	5	5 60
	6	6 40
	7	6 95
	8	7 50
	9	8 10
	10	8 65
	11	9 55
	12	10 40
	13	11 20
	14	12 00
	15	12 85
	16	13 70
	17	14 70
	18	15 80
22	4	4 95
	5	5 90
	6	6 85
	7	7 45
	8	8 00
	9	8 70
	10	9 40
	11	10 30
	12	11 20
	13	12 10
	14	13 00
	15	13 60
	16	14 20
	17	15 60
	18	17 00
23	4	5 20
	5	6 15
	6	7 05
	7	7 70
	8	7 40
	9	9 20
	10	9 95
	11	11 05
	12	12 00
	13	13 00
	14	14 00
	15	15 10
	16	16 20
	17	17 00
	18	18 50
24	4	5 40
	5	6 35
	6	7 30
24	7	$ 8 05
	8	8 80
	9	9 65
	10	10 45
	11	11 55
	12	12 70
	13	13 90
	14	15 10
	15	16 30
	16	17 50
	17	18 75
	18	20 00
	20	28 50
	21	30 50
	22	32 50
	23	35 00
	24	37 50
	25	41 00
25	4	5 80
	5	6 65
	6	7 60
	7	8 40
	8	9 20
	9	9 85
	10	10 90
	11	12 15
	12	13 40
	13	14 80
	14	16 25
	15	17 70
	16	19 10
	17	20 55
	18	22 00
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	21	32 00
	22	34 00
	23	36 50
	24	39 00
	25	42 50
26	4	6 35
	5	7 00
	6	7 95
	7	8 80
	8	9 60
	9	10 05
	10	11 40
	11	12 80
	12	14 20
	13	15 85
	14	17 50
	15	19 15
	16	20 80
	17	22 45
	18	24 10
	20	31 50
	21	33 50
	22	35 50
	23	37 50
	24	40 00
	25	43 50
27	4	6 78
	5	7 40
	6	8 27
	7	9 13
	8	9 95
27	9	$10 63
	10	11 75
	11	13 25
	12	14 72
	13	16 47
	14	18 25
	15	20 17
	16	21 90
	17	23 70
	18	25 50
	20	32 25
	21	34 25
	22	36 25
	23	38 25
	24	40 75
	25	44 00
28	4	7 20
	5	7 80
	6	8 60
	7	9 45
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	10	12 10
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	15	21 00
	16	23 00
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	18	26 90
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	21	35 00
	22	37 00
	23	39 00
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	25	44 50
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	5	8 20
	6	9 00
	7	9 95
	8	10 90
	9	11 80
	10	12 67
	11	14 20
	12	15 87
	13	17 92
	14	20 00
	15	22 10
	16	24 20
	17	26 32
	18	28 45
	20	33 75
	21	35 62
	22	37 62
	23	39 62
	24	41 87
	25	45 00
30	4	8 00
	5	8 60
	6	9 40
	7	10 45
	8	11 50
	9	12 40
	10	13 25
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	12	16 50
	13	18 75
	14	21 00
	15	23 20
	16	25 40
	17	27 70
	18	30 00
	20	34 50
	21	36 25
	22	38 25
	23	40 25
	24	42 25
	25	45 50
31	4	8 40
	5	9 00
	6	9 85
	7	11 02
	8	12 20
	9	13 17
	10	14 13
	11	15 68
	12	17 20
	13	19 52
	14	21 87
	15	24 22
	16	26 57
	17	28 85
	18	31 12
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	21	37 25
	22	39 25
	23	41 25
	24	43 25
	25	46 00
32	4	8 80
	5	9 40
	6	10 30
	7	11 60
	8	12 90
	9	13 95
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	16	27 75
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	25	46 50
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	5	9 95
	6	10 90
	7	12 30
	8	13 70
	9	14 85
	10	16 00
	11	17 47
33	12	$18 95
	13	21 45
	14	23 62
	15	26 25
	16	28 87
	17	31 12
	18	33 37
	20	37 00
	21	39 50
	22	41 50
	23	43 50
	24	45 50
	25	47 75
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	6	11 50
	7	13 00
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	23	46 12
	24	48 12
	25	51 00
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	5	11 90
	6	13 00
	7	14 50
	8	16 00
	9	17 55
	10	19 10
	11	20 80
	12	22 50
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	14	26 50
	15	29 45
	16	32 40
	17	34 70
	18	37 00
	20	41 50
	21	43 50
	22	45 50
	23	47 50
	24	49 50
	25	53 00
38	6	14 50
	7	16 05
	8	17 60
	9	19 15
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	12	24 75
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	21	47 00
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	25	58 00
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	8	19 00
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	16	45 00
	17	47 50
	18	50 00
	20	62 00
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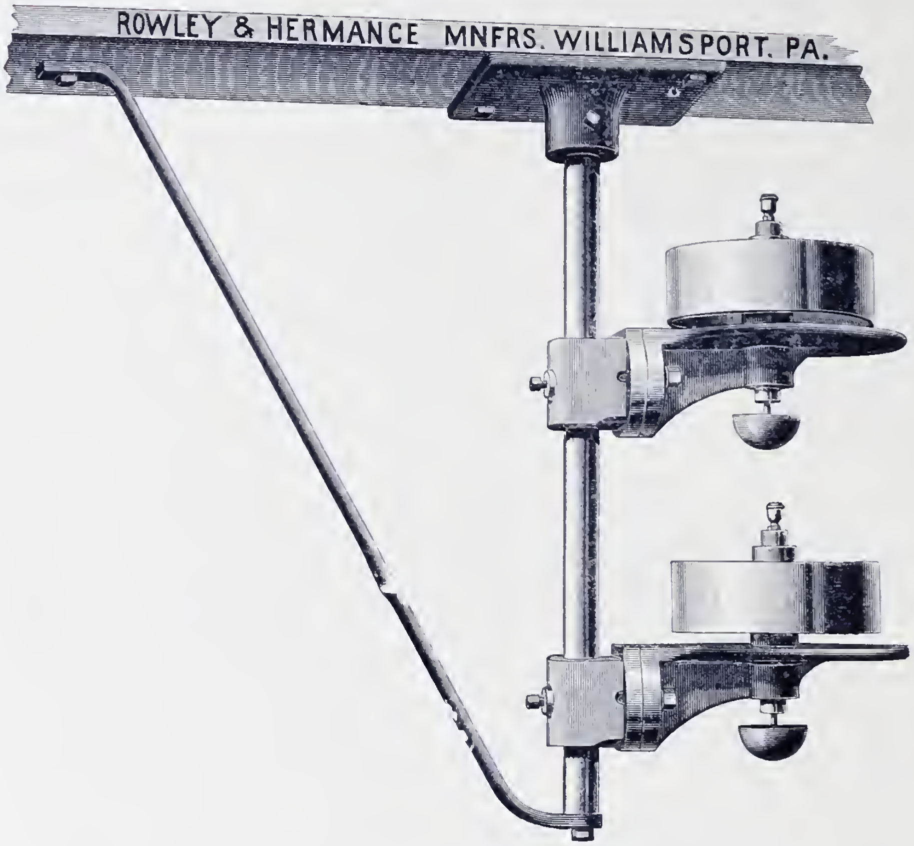
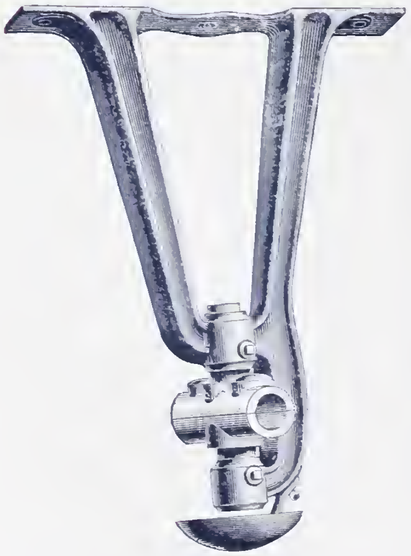
	23	76 00
	24	80 00
	25	84 00
50	8	31 50
	9	33 50
	10	35 50
50	11	$37 25
	12	39 00
	13	41 50
	14	44 00
	15	47 00
	16	50 00
	17	53 00
	18	56 00
	20	65 00
	21	69 75
	22	74 50
	23	79 50
	24	85 50
	25	90 00
52	8	34 00
	9	36 00
	10	38 00
	11	40 00
	12	42 00
	13	44 00
	14	46 00
	15	49 50
	16	52 50
	17	56 50
	18	60 00
	20	68 00
	21	72 50
	22	77 00
	23	81 50
	24	86 25
	25	93 00
54	8	37 50
	9	39 25
	10	41 00
	11	43 00
	12	45 00
	13	47 25
	14	49 50
	15	52 50
	16	55 50
	17	60 00
	18	64 50
	20	73 50
	21	78 25
	22	83 00
	23	87 75
	24	92 50
	25	98 00
56	8	40 50
	9	42 50
	10	44 50
	11	46 50
	12	48 50
	13	51 00
	14	53 50
	15	56 75
	16	60 00
	17	63 75
	18	69 50
	20	84 00
	21	88 50
	22	93 25
	23	98 00
	24	102 50
	25	106 00

MULE PULLEY STAND.

FOR CARRYING POWER AROUND A CORNER. ADJUSTABLE IN EVERY DIRECTION.

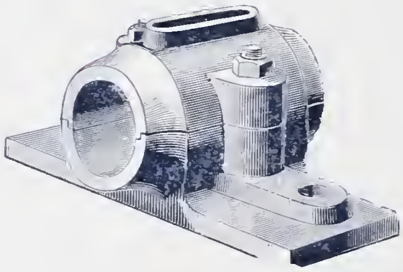


THE line shafts may be at any angle with each other—may not be in the same plane. The pulleys may differ much in diameter, and the belt may be crossed. Locate stand so that its shaft will be about ten times the width of the belt from the line shafts.



Adjustable Ball and Socket Drop Hanger.

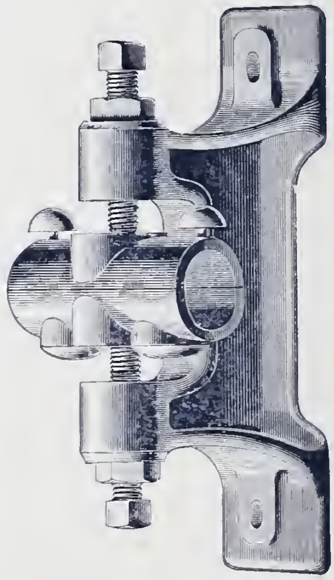
For price, see page 91.



Rigid Pillow Block.

Babbitted.

Size,	1½ in.	-	Price, $1 90
	1¾	-	2 25
	2	-	2 90
	2¼	-	3 55
	2½	-	4 45
	2¾	-	5 60
	3	-	7 20



Adjustable Post Hanger.

For price, see page 91.

Finished and Balanced Plain Pulleys.

Diam.	Face.	Price.
6 " and 6¼	2"	$1 15
	3	1 23
	4	1 32
	5	1 40
	6	1 54
	7	1 70
	8	1 87
	10	2 10
	12	2 30
6½ 6¾ and 6 13/16	2	1 20
	3	1 28
	4	1 40
	5	1 54
	6	1 67
	7	1 83
	8	2 00
	10	2 20
	12	2 45
7 7⅛ 7¼ and 7 7/16	2	1 25
	3	1 33
	4	1 49
	5	1 65
	6	1 80
	7	1 96
	8	2 12
	10	2 30
	12	2 60
7½ 7¾ and 7⅞	2	1 32
	3	1 40
	4	1 54
	5	1 70
	6	1 86
	7	2 05
	8	2 18
	10	2 40
	12	2 75
8 an 8¼	2	1 36
		1 47
	4	1 58
	5	1 75
	6	1 91
	7	2 13
	8	2 30
	10	2 50
	12	2 95
8½ and 8¾	2	1 40
	3	1 51
	4	1 66
	5	1 87
	6	2 05
	7	2 20
	8	2 41
	10	2 65
	12	3 10

Diam.	Face.	Price.
9" and 9¼	2"	$1 45
	3	1 60
	4	1 75
	5	1 93
	6	2 12
	7	2 30
	8	2 48
	10	2 81
	12	3 31
9½ and 9¾	2	1 50
	3	1 65
	4	1 80
	5	2 00
	6	2 19
	7	2 38
	8	2 55
	10	2 90
	12	3 40
10	2	1 55
	3	1 70
	4	1 85
	5	2 05
	6	2 24
	7	2 42
	8	2 60
	10	2 95
	12	3 50
10½	2	1 60
	3	1 75
	4	1 90
	5	2 10
	6	2 30
	7	2 47
	8	2 67
	10	3 02
	12	3 57
11	2	1 68
	3	1 80
	4	1 95
	5	2 15
	6	2 35
	7	2 52
	8	2 72
	10	3 10
	12	3 65
11½	2	1 75
	3	1 88
	4	2 03
	5	2 22
	6	2 42
	7	2 60
	8	2 80
	10	3 25
	12	3 75

Diam.	Face.	Price.
12"	3"	$1 95
	4	2 10
	5	2 30
	6	2 50
	7	2 70
	8	2 90
	10	3 35
	12	3 85
	14	4 25
12½	3	2 00
	4	2 15
	5	2 35
	6	2 60
	7	2 75
	8	2 95
	10	3 40
	12	3 95
	14	4 40
13 and 13⅛	3	2 05
	4	2 25
	5	2 40
	6	2 65
	7	2 80
	8	3 00
	10	3 50
	12	4 15
	14	4 60
13½	3	2 10
	4	2 30
	5	2 45
	6	2 70
	7	2 85
	8	3 07
	10	3 69
	12	4 30
	14	4 80
14	3	2 15
	4	2 35
	5	2 50
	6	2 75
	7	2 95
	8	3 15
	10	3 78
	12	4 45
	14	5 10
14½	3	2 20
	4	2 40
	5	2 55
	6	2 80
	7	3 05
	8	3 25
	10	3 84
	12	4 55
	14	5 15

Diam	Face.	Price. Single Belt.	Price. D'ble Belt.
15"	3 "	$2 25	$3 10
	4	2 45	3 25
	5	2 60	3 55
	6	2 85	3 80
	7	3 10	4 00
	8	3 35	4 25
	10	3 95	5 00
	12	4 70	6 00
	14	5 25	7 00
15½	3	2 30	3 15
	4	2 50	3 30
	5	2 65	3 60
	6	2 90	3 90
	7	3 17	4 10
	8	3 45	4 35
	10	4 08	5 10
	12	4 90	6 15
	14	5 38	7 15
16	3	2 40	3 25
	4	2 55	3 40
	5	2 70	3 70
	6	2 95	4 00
	7	3 25	4 20
	8	3 55	4 50
	10	4 27	5 25
	12	5 15	6 30
	14	5 60	7 30
16½	3	2 50	3 35
	4	2 60	3 50
	5	2 80	3 75
	6	3 05	4 19
	7	3 35	4 30
	8	3 65	4 65
	10	4 45	5 40
	12	5 25	6 50
	14	5 87	7 50
	16	6 50	8 40
17	3	2 60	3 45
	4	2 70	3 60
	5	2 90	3 85
	6	3 15	4 20
	7	3 50	4 45
	8	3 75	4 80
	10	4 62	5 60
	12	5 50	6 70
	14	6 16	7 70
	16	6 80	8 60
17½	3	2 70	3 55
	4	2 80	3 70
	5	3 00	3 95
	6	3 25	4 30
	7	3 60	4 60
	8	3 85	4 95
	10	4 75	5 80
	12	5 60	7 00
	14	6 30	7 85
	16	7 00	8 80

Diam.	Face.	Price. Single Belt.	Price. D'ble Belt.
18 "	3"	$2 80	$3 65
	4	2 90	3 80
	5	3 10	4 05
	6	3 35	4 40
	8	3 90	5 10
	10	4 85	6 05
	12	5 75	7 20
	14	6 45	8 05
	16	7 20	9 00
18½	3	2 90	3 80
	4	3 00	3 90
	5	3 20	4 15
	6	3 45	4 55
	8	4 05	5 25
	10	5 00	6 25
	12	5 95	7 45
	14	6 70	8 40
	16	7 45	9 30
19	3	3 00	3 90
	4	3 10	4 05
	5	3 30	4 30
	6	3 55	4 65
	8	4 20	5 35
	10	5 15	6 45
	12	6 15	7 70
	14	7 00	8 75
	16	7 65	9 55
19½	3	3 10	4 05
	4	3 20	4 15
	5	3 40	4 40
	6	3 65	4 80
	8	4 35	5 65
	10	5 35	6 70
	12	6 30	7 90
	14	7 20	9 00
	16	7 90	9 90
20	3	3 20	4 15
	4	3 30	4 30
	5	3 50	4 55
	6	3 75	4 90
	8	4 50	5 85
	10	5 50	6 90
	12	6 45	8 05
	14	7 40	9 25
	16	8 15	10 20
20½	3	3 30	4 30
	4	3 40	4 45
	5	3 60	4 70
	6	3 85	5 05
	8	4 65	6 05
	10	5 70	7 10
	12	6 75	8 45
	14	7 60	9 50
	16	8 35	10 45

Diam.	Face.	Price. Single Belt.	Price. D'ble Belt.	Price. D'ble Arms.
21 "	3"	$3 40	$4 40	$
	4	3 50	4 55	
	5	3 70	4 80	
	6	3 95	5 20	
	8	4 80	6 25	
	10	5 90	7 40	
	12	7 00	8 75	
	14	7 80	9 75	
	16	8 60	10 75	
	18		11 80	
	20		12 90	14 85
	22			16 50
	24			18 25
	26			20 10
	28			22 05
	30			24 10
21½	3	3 50	4 55	
	4	3 60	4 70	
	5	3 80	4 95	
	6	4 10	5 30	
	8	4 95	6 45	
	10	6 10	7 65	
	12	7 25	9 05	
	14	8 05	10 05	
	16	8 90	11 15	
22	3	3 60	4 70	
	4	3 70	4 80	
	5	3 90	5 10	
	6	4 20	5 40	
	8	5 10	6 65	
	10	6 30	7 90	
	12	7 50	9 40	
	14	8 30	10 40	
	16	9 20	11 50	
	18		12 65	
	20		13 80	15 90
	22			17 60
	24			19 40
	26			21 30
	28			23 30
	30			25 40
22½	3	3 70	4 80	
	4	3 80	4 95	
	5	4 00	5 20	
	6	4 30	5 55	
	8	5 30	6 90	
	10	6 50	8 10	
	12	7 75	9 70	
	14	8 55	10 70	
	16	9 50	11 90	

PAT. COLD ROLLED STEEL and IRON SHAFTING, PISTON RODS, &c.*

Made to Whitworth Standard Gauges and accurately straightened.

Diameter.	Weight per foot.	Price per lb. Iron or Steel.	Diameter.	Weight per foot.	Price per lb. Iron or Steel.
4½ "	54.11	5½	1½	6.01	5
4 7-16	52.62		1 15-32	5.60	
4¼	48 26		1 7-16	5.52	
4	42 75		1 13-32	5 26	
3 15-16	41.04		1⅜	5 05	
3¾	37.57		1 5-16	4.61	
3½	32 73	5¼	1 17-64	4.24	
3 7 16	31.58		1 26-100	4.20	
3⅜	30.43		1¼	4.17	
3¼	28 22		1 2-10	3.86	
3 3-16	27 16		1 3-16	3.77	
3⅛	26 09		1⅛	3.38	5¼
3	24 05	5	1 3-32	3.20	
2 15-16	23 06		1 5 64	3.11	
2⅞	22 09		1 1-16	3 02	
2 13 16	21.15		1	2 68	
2¾	20 21		31-32	2 52	
2 11-16	19 31		15 16	2.35	
2⅝	18 41		29 32	2.20	
2 9-16	17 55		⅞	2 05	
2½	16.70		27-32	1 94	
2 7 16	15.89		13 16	1.77	
2⅜	15 07		¾	1.50	
2¼	13.52		11-16	1.26	5¾
2 3-16	12 80		21-32	1.17	
2⅛	12 07		⅝	1.05	
2	10 69		9-16	.845	
1 15 16	10 03		½	.667	6½
1⅞	9 39		15-32	.586	
1 13 16	8 78		7 16	.511	
1¾	8.18		43 100	.506	7½
1 11-16	7 61		⅜	.375	
1⅝	7 06		5-16	.260	10
1 9 16	6 52		¼	.167	13

Self-Adjusting Double Compression Couplings.

Size of Shaft.	Len'th of Coupling	Price.	Size of Shaft.	Len'th of Coupling	Price.
1 "	3½ "	$2 40	2½"	8¾ "	$ 8 20
1⅛	3 15 16	2 60	2⅝	9 3-16	9 10
1¼	4⅜	2 85	2¾	9⅝	10 00
1⅜	4 13 16	3 15	2⅞	10 1-16	11 00
1½	5¼	3 40	3	10½	12 35
1⅝	5 11-16	3 75	3¼	11⅜	15 00
1¾	6⅛	4 25	3½	12¼	18 05
1⅞	6 9-16	4 85	3¾	13⅛	21 75
2	7	5 40	4	14	24 80
2⅛	7 7-16	6 10	4¼	14⅞	28 10
2¼	7⅞	6 75	4½	15¾	33 15
2⅜	8 5-16	7 45	4¾	16⅝	37 50

Prices for Special Pulleys of any diameter, face or weight, given on application. To the list of prices for Plain Pulleys, we add extra as follows:

	6 to 12" Diamcter.	12½ to 24" Diameter.	25 to 36" Diameter.	37" and Larger.
For Split Pulleys, . .	40 per cent.	30 per cent.	20 per cent.	15 per cent.
For Tight and Loose Pulleys, .	15 per cent.	10 per cent.	5 per cent.	5 per cent.

ADJUSTABLE BALL and SOCKET HANGERS.

WITH BABBITTED BEARINGS.

DROP HANGERS.

Size	8 Inch Drop.	9 Inch Drop.	10 Inch Drop.	12 Inch Drop.	13 Inch Drop.	15 Inch Drop.	18 Inch Drop.	21 Inch Drop.	24 Inch Drop.	30 Inch Drop.	Size.
1¼"	$2 55	$2 60	$2 65	$2 70	$2 75	$2 90	$3 05	$3 20	$3 40	$4 00	1¼ "
1⅜	2 65	2 70	2 75	2 85	2 90	3 10	3 25	3 40	3 70	4 50	1⅜
1½	2 90	3 00	3 05	3 15	3 20	3 40	3 55	3 80	4 00	5 40	1½
1⅝	3 00	3 10	3 20	3 30	3 40	3 60	3 75	4 00	4 50	5 60	1⅝
1¾	3 15	3 30	3 50	3 80	3 90	4 06	4 25	4 40	4 65	5 75	1¾
1⅞	3 40	3 55	3 75	4 20	4 30	4 40	4 60	4 75	5 00	6 00	1⅞
2	3 85	4 00	4 25	4 50	4 70	4 85	5 00	5 30	5 60	6 55	2
2⅛	4 10	4 25	4 50	4 75	4 95	5 10	5 25	5 60	5 90	6 90	2⅛
2¼	4 40	4 55	4 80	5 05	5 20	5 35	5 50	5 90	6 20	7 20	2¼
2⅜	5 10	5 25	5 45	6 00	6 30	6 60	6 95	7 20	7 50	8 25	2⅜
2½	5 25	5 40	5 60	6 20	6 50	6 80	7 20	7 45	7 75	8 60	2½
2⅝	5 50	5 65	5 85	6 50	6 80	7 10	7 55	7 80	8 10	9 00	2⅝
2¾	5 80	5 95	6 15	6 80	7 10	7 50	7 90	8 20	8 50	9 50	2¾
2⅞	6 25	6 40	6 60	7 25	7 60	8 00	8 50	8 80	9 40	10 50	2⅞
3	7 80	8 00	8 20	8 70	8 95	9 25	9 50	9 80	10 30	12 00	3
3⅛	8 30	8 50	8 75	9 25	9 60	9 90	10 25	10 60	11 10	13 00	3⅛
3¼	9 00	9 25	9 50	10 00	10 40	10 85	11 15	11 50	12 00	14 00	3¼
3½				12 75	13 15	14 00	14 50	15 00	15 50	18 00	3½
3¾				13 20	14 10	15 00	15 50	16 00	16 50	19 10	3¾
4				16 00	16 55	17 25	17 75	18 50	19 00	21 90	4
4½				24 00	21 65	25 50	26 35	27 20	28 10	29 40	4½

ADJUSTABLE POST HANGER, with Babbitted Bearings.

Size.	Price.	From Post to Center of Shaft.
1¼ in.	$2 10	6 "
1½	2 25	
1⅝	2 35	
1¾	2 50	
1⅞	3 65	
2	3 75	
2⅛	3 90	
2¼	4 15	
2⅜	5 75	
2½	5 90	
2⅝	6 20	
2¾	7 60	
2⅞	7 80	
3	8 10	
3¼	11 50	8
3½	11 75	
3¾	16 10	
4	16 50	
4½	26 00	10
5	40 00	13¼
6	57 00	
7	102 00	

LOOSE COLLARS, WITH SET SCREWS.

Diameter of Shaft.	Price.
1 inch.	$ 62
1⅛	64
1¼	69
1⅜	75
1½	84
1⅝	98
1¾	1 18
1⅞	1 40
2	1 66
2⅛	1 82
2¼	2 00
2⅜	2 20
2½	2 41
2⅝	2 68
2¾	2 84
2⅞	2 96
3	3 21
3¼	3 45
3½	3 78
3¾	4 15
4	4 68

* One cent. extra per lb. for Punch and Piston Rods. The shafts are kept in stock at the mill in lengths of 24 feet, and are cut to any length desired.

Price-List of Superior French Band Saw Blades.

Width.	Length, 19¾ ft.	Length, 21½ ft.	Length, 23 ft.	Length, 24⅔ ft.
⅛ 3/16 inch	2 36	2 55	2 74	2 96
¼	3 26	3 53	3 86	4 13
5/16	3 26	3 53	3 86	4 13
⅜	3 26	3 53	3 86	4 13
½	3 94	4 31	4 73	5 10
⅝	3 94	4 31	4 73	5 10
¾	4 69	5 25	5 81	6 38
⅞ 1	6 00	6 75	7 31	7 88
1⅛ 1¼	7 31	8 25	8 81	9 56
1⅜ 1½	8 63	9 38	10 31	11 25

SUGGESTIONS ON THE USE OF BAND SAWS.

Keep the correct pitch upon the teeth, so as to give the saw a proper lead into the cut. This will take the friction entirely off the stay pin. By the use of a round edge file, the saw will keep from galling and breaking. To save trouble and expense, a proper pitch must be held for each kind of work and wood.

Our Band Saw Blades are fully warranted, and in quality and temper are unequaled.

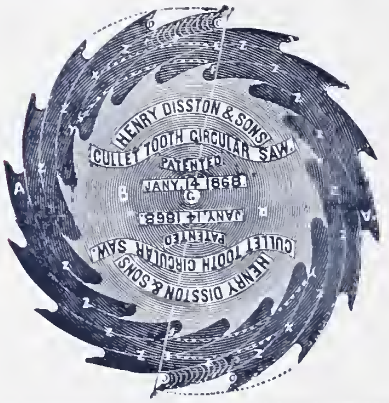
Price of ¾ inch Saws and smaller is for gauge 21. Price of all other Saws is for gauge 20. Thicker saws advance 12½ per cent per gauge. Discount,............ Brazing, extra, 50c. net. Filing and Setting, extra, 75c. net.

BEST DOMESTIC BLADES, NOT JOINED.

21 Gauge.				20 Gauge.				19 Gauge.					18 Gauge.		17 Gauge.		
¼ in.	⅜ in.	½ in.	⅝ in.	¾ in.	⅞ in.	1 in.	1⅛ in.	1¼ in.	1⅜ in.	1½ in.	1¾ in.	2 in.	2¼ in	2½ in	2¾ in.	3 in.	3½ in.
7	8	10	12 c. ℔ ft.	14	16	18	20 c. ℔ ft	23	26	28	34	40 c. ℔ ft.	48	56 c. ℔ ft.	70	80	$1 00 ℔ ft.

Setting and filing, 4 cents per foot extra.

When ordering Band Saws, give width, gauge, and length, and whether to be joined, set and sharpened.



PRICE-LIST.

OF

Pat. Ground and Tempered Solid Teeth Circular Saws,

Of Extra Quality, Superior Workmanship, and Warranted.

Diameter.	Thickness.	Size of Hole.	Price each.	Extra for each additional gauge (heavier.)	Prices for beveling new saws, (Grinding or beveling old saws, extra.) per gauge.
1 in.,	24 gauge,	⅜ in.,	$0.50	$0.01	$0.06
1½ "	24 "	⅜ "	.55	.01	.07
2 "	23 "	⅜ "	.60	.01½	.08
2½ "	22 "	⅜ "	.65	.02	.09
3 "	21 "	½ "	.70	.02½	.10
3½ "	20 "	½ "	.80	.03	.12
4 "	19 "	¾ "	.90	.03	.14
5 "	19 "	¾ "	1.10	.04	.16
6 "	18 "	¾ "	1.30	.05	.18
7 "	18 "	¾ "	1.50	.06	.20
8 "	18 "	⅞ "	1.75	.08	.22
9 "	17 "	⅞ "	2.00	.10	.25
10 "	16 "	1 "	2.30	.12	.28
11 "	16 "	1 "	2.65	.14	.30
12 "	15 "	1 "	3.00	.17	.35
14 "	15 "	1⅛ "	4.50	.21	.40
16 "	14 "	1⅛ "	5.50	.25	.50
18 "	13 "	1¼ "	7.00	.30	.60
20 "	13 "	1 5/16 "	8.50	.35	.70
22 "	12 "	1 5/16 "	10.00	.45	.80
24 "	11 "	1⅜ "	12.00	.55	.90
26 "	11 "	1⅜ "	14.50	.65	1.05
28 "	10 "	1½ "	16.00	.80	1.20
30 "	10 "	1½ "	18.00	.90	1.30
32 in.,	10 gauge.	1⅝ in.,	20.00	1.00	1.40
34 "	9 "	1⅝ "	22.50	1.20	1.55
36 "	9 "	1⅝ "	25.50	1.40	1.70
38 "	9 "	1⅝ "	30.00	1.75	1.85
40 "	9 "	2 "	35.00	2.00	2.00
42 "	8 "	2 "	40.00	2.50	2.20
44 "	8 "	2 "	52.50	3.00	2.40
46 "	8 "	2 "	60.00	3.50	2.60
48 "	8 "	2 "	70.00	4.00	2.80
50 "	7 "	2 "	80.00	4.50	3.00
52 "	7 "	2 "	90.00	5.00	3.25
54 "	7 "	2 "	100.00	6.00	3.50
56 "	7 "	2 "	115.00	7.00	3.75
58 "	7 "	2 "	130.00	8.00	4.05
60 "	6 "	2 "	145.00	9.00	4.35
62 "	6 "	2 "	160.00	10.00	4.65
64 "	6 "	2 "	180.00	12.00	5.00
66 "	6 "	2 "	200.00	15.00	5.35
68 "	5 "	2 "	225.00	18.00	5.75
70 "	5 "	2 "	255.00	21.00	6.15
72 "	5 "	2 "	290.00	24.00	6.55
74 "	5 "	2 "	330.00	27.00	7.00
76 "	5 "	2 "	375.00	30.00	7.50

Circular Saws to cut metal or ivory, 50 per cent. advance. No extra charge for saws one gauge thicker than list. Circular Saws beveled one gauge without extra charge up to 44-inches. 44-inches and larger, beveled two gauges without extra charge.

PRICE-LIST OF PLANING MILL SUPPLIES.

BEST MILL FILES. WARRANTED.

MILL SAW, ROUND & SQUARE.

INCH.	Bastard.	Second Cut.
4	$1 40	$1 65
5	1 60	1 85
6	1 85	2 10
7	2 20	2 55
8	2 65	3 05
9	3 15	3 65
10	3 80	4 35
11	4 50	5 20
12	5 35	6 15
13	6 40	7 35
14	7 65	8 75
15	9 10	10 50
16	10 80	12 40
17	12 60	14 55
18	14 70	16 90
19	17 10	19 70
20	19 70	22 70

HAND, HALF ROUND, PILLAR & THREE SQUARE.

INCH.	Bastard.	Second Cut.	Smooth.
4	$1 60	$1 85	$2 00
5	1 85	2 10	2 35
6	2 20	2 55	2 80
7	2 65	3 05	3 30
8	3 15	3 65	3 95
9	3 80	4 35	4 75
10	4 50	5 20	5 60
11	5 25	6 05	6 60
12	6 25	7 20	7 80
13	7 35	8 50	9 20
14	8 75	10 10	10 95
15	10 35	11 90	12 95
16	12 25	14 10	15 35
17	14 55	16 75	18 20
18	17 25	19 90	21 60
19	20 30	23 40	25 40
20	23 90	27 50	29 90

SAW FILES.

INCH.	Taper Single Cut.	Slim Taper Single Cut.	Pit Saw Blunt Single Cut.	Band Saw Taper Single Cut.
3	$1 05	$1 15	$1 50	$1 70
3½	1 05	1 15	1 50	1 70
4	1 20	1 25	1 60	1 85
4½	1 35	1 40	1 70	2 05
5	1 60	1 55	1 85	2 35
5½	1 85	1 75	2 10	2 65
6	2 15	2 05	2 45	3 00
7	2 75	2 45	3 15	3 70
8	3 45	3 00	3 95	4 50
9	4 30	3 65	4 80	
10	5 35	4 50	5 80	
11	6 60	5 55	6 85	
12	8 00	6 85	8 00	
13	9 55	8 40		
14	11 30	10 35		

EXTRAS.—One round edge advances, 7½ per cent., and two rouud edges, 15 per cent. on respective kinds and cuts; dead smooth, double the price of bastard cut.

EMERY WHEELS, BEST QUALITY.

Diameter of Wheels in Inches.	THICKNESS IN INCHES.											Revolutions per Minute.
	½	¾	1	1¼	1½	1¾	2	2¼	2½	2¾	3	
6	$ 1 75	$ 2 40	$ 3 05	$ 3 70	$ 4 35	$ 5 00	$ 5 65	$ 6 25	$ 6 80	$ 7 45	$ 8 10	3200
7	2 15	3 00	3 85	4 70	5 55	6 40	7 25	8 10	8 90	9 70	10 50	2700
8	2 60	3 60	4 60	5 60	6 60	7 60	8 60	9 60	10 60	11 60	12 60	2400
9	3 10	4 35	5 60	6 75	7 50	8 75	10 00	11 25	12 50	13 75	15 00	2100
10½	3 60	5 15	6 70	8 25	9 75	11 25	12 75	14 25	15 75	17 25	18 75	1800
12	4 25	5 75	7 35	9 00	10 70	12 25	14 00	15 70	17 40	19 00	20 70	1600
14	6 25	8 45	10 65	12 90	15 10	17 40	19 60	21 80	24 00	26 30	28 60	1350
16	8 00	10 85	13 70	16 50	19 40	22 25	25 00	27 90	30 75	33 50	36 40	1200
18	9 50	13 25	17 00	20 75	24 50	28 25	32 00	35 75	39 50	43 25	47 00	1050
20		16 00	20 50	25 00	29 00	33 50	38 00	42 50	47 00	51 50	56 00	950
24			29 00	36 00	43 00	56 00	57 00	64 00	71 00	78 00	85 00	850
30				50 00	61 00	72 00	83 00	94 00	105 00	116 00	127 00	700
36					95 00	110 50	126 00	141 50	157 00	172 00	188 00	550

In ordering Emery wheels, diameter, thickness and size of hole should be given, and the purpose for which they are to be used.

ROWLEY & HERMANCE AND BAEDER & ADAMSON'S BEST FLINT PAPER.

No. 00 to 1½, $4 50 per Ream.
No. 2, 2½ and 3, 5 00 "

Do. in Rolls of 50 yards, { No. 00 to 1½, 10c. | 2 11c. | 2½ 12c. | 3 13c. | 3½ 16c. } per yard.

FINISHING NAILS, in lb. papers or in bulk.

½, 30cts. ⅝, 24cts. ¾, 20cts. ⅞, 18cts. 1, 16cts. 1⅛, 15cts. 1¼, 14cts. 1½, 14cts. 1¾, 13cts. 2, 13cts. per lb.

MORTISE CHISELS, &c.

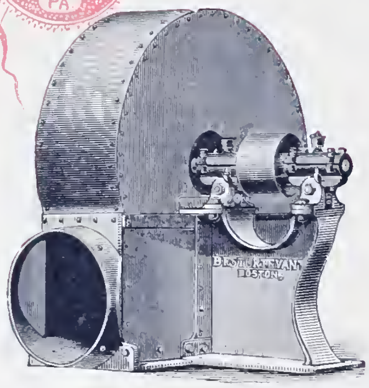
Mortise Chisels, our own make, best in use, all sizes up to 1 inch, $1.00 each; each ¼ inch over 1 inch, 25cts. extra.
Cole's Patent Mortise Chisel, $1.50 each. Panel Raiser Knives, per set, $6.00.
Web Scroll Saws, per inch in length, 2cts. Babbit Metal, 15 to 40cts. per lb.; a good Metal for 25cts.
For list of Moulding Bits, Planer Knives, etc., see page 95.

FRAME PULLEYS.

1½ in. Common, per doz., . . 25 cts.	2 in. Excelsior Polished Wheel, per doz., . 35 cts.
1¾ in. Excelsior Polished Wheel, per doz., . 30 cts.	2¼ in. Excelsior Polished Wheel, per doz., 45 cts.

Boardman's Blind Staples.—⅜ in., 13cts. per lb.; ½ in., ⅝ in., and ¾ in., 12cts. Special prices for large quantities.

STURTEVANT'S EXHAUST FANS.



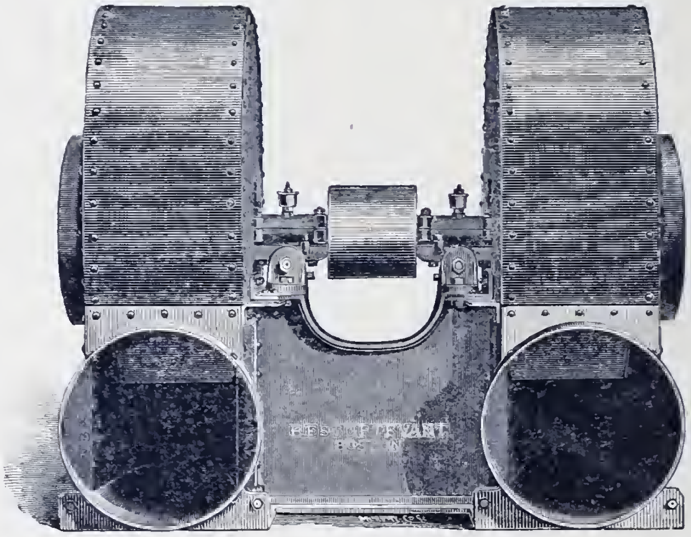
Shells, Wheels and Shafts of Steel.

Prices and Dimensions of Single Exhausters.

Size.	Price.	Height of Shell	Diameter of Inlet.	Diameter of Outlet.	Diameter and Face of Pulleys.
30 in.	$44 00	30 in.	11¼ in.	11¼ in.	5¼ x 4½ in.
35	55 00	35	13¼	13¼	6 x 5½
40	70 00	40	15	15	6¾ x 6½
45	90 00	45	17	17	7½ x 7
50	115 00	50	19	19	8½ x 7½
55	150 00	55	20½	20½	9½ x 8
60	185 00	60	22½	22½	10¼ x 8½
70	250 00	70	26	26	12 x 9½
80	325 00	80	30	30	14 x 12½

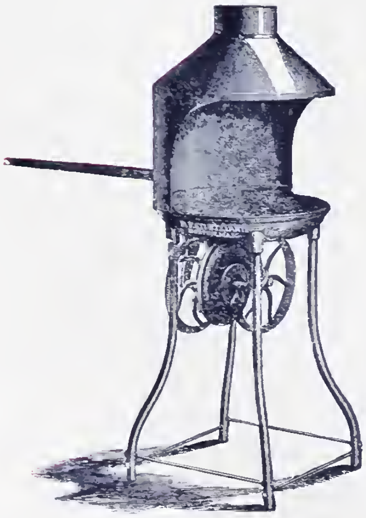
Prices and Dimensions of Double Exhausters.

Size.	Price.	Height of Shell.	Diameter of Inlet.	Diameter of Outlet.	Diameter & Face of Pulleys.
30 in.	$80 00	30 in.	11¼ in.	11¼ in.	6 x 6 in.
35	90 00	35	13¼	13¼	7 x 7
40	113 00	40	15	15	8 x 8
45	150 00	45	17	17	9 x 9
50	200 00	50	19	19	10 x 10½
55	250 00	55	20½	20½	11 x 11
60	300 00	60	22½	22½	12 x 11½



DOUBLE EXHAUSTERS.

PORTABLE FORGES.



DIMENSIONS AND WEIGHTS.

	1	2	3	4	5
Height of Pan	33 inch.	33 inch.	33 inch.	31 inch.	31 inch.
Size of Pan.	Round 21 in. Dia.	Round 21 in. Dia.	Round 21 in. Dia.	22 x 33 in.	26½ x 38½
Dia. of Blower	10 in.	10 in.	10 in.	10 in.	10 in.
Weight,	117	127	140	157	173

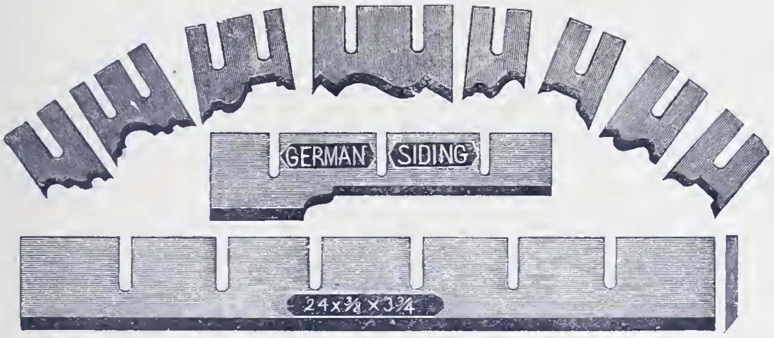
MACHINE BITS.

	Twist 2 to 6 in. long.		Twist 6 to 9 in. long.		Twist 9 to 12 in. long.			Twist 2 to 6 in. long.		Twist 6 to 9 in. long.		Twist 9 to 12 in. long.	
Size	Doz.	Each.	Dozen.	Each.	Dozen.	Each.	Size.	Dozen.	Each.	Dozen.	Each.	Dozen.	Each.
4-16	$6 00	$ 55	$6 60	$ 60	$7 20	$ 65	19-16	$24 00	$2 10	$26 40	$2 30	$28 80	$2 50
5-16	6 50	60	7 15	65	7 80	75	20-16	25 50	2 25	28 00	2 50	30 60	2 70
6-16	7 00	65	7 70	75	8 40	80	21-16	27 00	2 35	29 70	2 60	32 40	2 85
7-16	8 25	75	9 10	85	9 90	90	22-16	28 50	2 50	31 40	2 75	34 20	3 00
8-16	9 50	85	10 50	95	11 40	1 05	23-16	30 00	2 60	33 00	2 85	36 00	3 15
9-16	10 50	95	11 50	1 05	12 60	1 15	24-16	31 50	2 75	34 70	3 00	37 80	3 30
10-16	11 50	1 05	12 65	1 15	13 80	1 25	25-16	33 00	2 85	36 30	3 15	39 60	3 40
11-16	12 50	1 15	13 75	1 25	15 00	1 35	26-16	34 50	3 00	38 00	3 30	41 40	3 60
12-16	14 00	1 25	15 40	1 40	16 80	1 50	27-16	36 00	3 10	39 60	3 40	43 20	3 75
13-16	15 50	1 40	17 00	1 55	18 60	1 65	28-16	37 50	3 25	41 25	3 55	45 00	3 90
14-16	16 75	1 50	18 50	1 65	20 10	1 80	29-16	39 00	3 35	43 00	3 70	46 80	4 05
15-16	18 00	1 60	19 80	1 75	21 60	1 95	30-16	40 50	3 50	44 50	3 85	48 60	4 20
16-16	19 50	1 70	21 50	1 90	23 40	2 10	31-16	42 00	3 60	46 25	4 00	50 40	4 35
17-16	21 00	1 85	23 10	2 05	25 20	2 25	32-16	43 50	3 75	48 00	4 15	52 20	4 50
18-16	22 50	2 00	24 75	2 20	27 00	2 35							

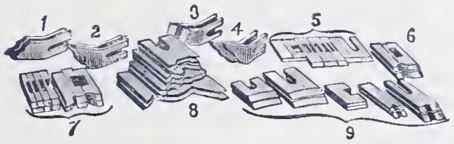
Our Machine Bits are used by all the leading railroads, car builders and implement manufacturers of the United States and Canada.

Planer and Moulding Knives.

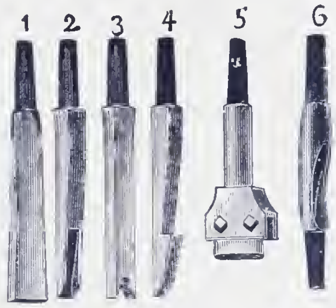
BEST QUALITY.



Planer Knives at 12cts. per inch. Moulding Knives at 40cts. per in.



Mortise Chisels.



PRICE:—No. 1, Core Punch, - -	$1 25
" 2, Ordinary Chisel, 1 in. and under,	1 00
" " each 1/4 over 1 in. ex.	25
" 3, Sash Chisel, - -	1 00
" 4, Lip " - - -	1 00
" 5, Bl'd Stile C. with removable cut'rs	5 00
" 6, Hollow Chisel for making Sash and Door Pins, - - -	2 00

We carry a full stock of our own make of the best Mortise Chisels made, and can *fill orders by mail* to any part of the United States In ordering always give name of maker of Mortising Machine, or send us an old chisel.

PRICE:—No. 1—O G Door Copes, top, - - - -	2 00
No. 2—O G Door Copes, bottom, - - - -	2 00
No. 3—Blank or Bevel Copes, - - - - -	2 00
No. 4—O G Sash Copes. - - - - -	2 00
Tenoner Cutters, per pair, - - - - -	3 00
Tenoner Spurs, plain, - - - - -	1 50
Patent Corrugated Spurs, see page 87.	
No. 5—Plain Jointing and Grooving Cutters, 6 pieces,	4 00
No. 6—Sash Cutters, each Bit, - - - -	50
No. 7—O. G. Door and Grooving Cutters, each Bit, - -	50
No. 8—Moulding Cutters, per inch, - - - -	40

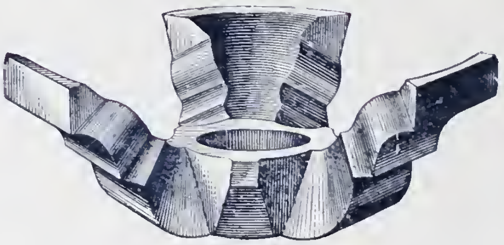
PRICE:—No 9—Blind Slat Moulding Cutters, - - -	5 00
Patent Circular Matcher Cutters, for Sweepstakes, per set of 4,	8 00
Pat. Milled Straight Matcher Cutters, for Sweepstakes, set of 4,	6 00
Panel Raising Cutters, per pair, - - - -	4 50
Panel Raising Cutters, per pair for 6 inch Moulders, -	3 00
Plain Cutters, over 6 to 31 inches long, per inch, - -	12
Plain Cutters, 4-in., per pair. - - - -	1 25
Plain Cutters, 3½-in., per pair, - - - -	1 15
Plain Cutters, 3-in., per pair, - - - - -	1 10
Plain Cutters, 2⅜-in., per pair, - - - -	1 00

Steel, Case-hardened, Corrugated feed Rolls, up to 1½ inch diameter, $1.00 per inch in length.
" " " " from 1½ inch to 2 inch diameter, $1.25 per inch in length.
" " " " over 2 inches diameter, $1.50 per inch in length.
German Siding Knives from $1 50 to $3.50 each.

ROWLEY & HERMANCE WILLIAMSPORT, PA.

PRICE-LIST OF PATENT CONCAVE CUTTERS.

CAN BE USED ON ANY SINGLE-SPINDLE MOULDING MACHINE.



These patent Cutters are made of the best cast steel, turned to suit the shape of the moulding. They are worked out so as to make a thin knife, and at the same time allow free escape of the shavings.

1	$4 50	21	$ 3 75	41	$10 00	62	$ 6 50	82	$6 50	102	$7 00	No. 50.	
2	5 50	22	3 75	42	3 25	63	3 00	83	7 00	103	2 25		
3	7 50	23	4 25	43	4 50	64	4 50	84	9 00	104	2 50	1-4 in. face.	$ 3 50
4	7 00	24	4 25	44	5 50	65	6 00	85	6 00	105	3 25	1-2 "	4 00
5	7 25	25	3 50	45	4 50	66	11 00	86	5 00	106	2 25	3-4 "	4 50
6	7 50	26	4 75	46	3 50	67	8 50	87	7 00	107	2 00	1 "	5 00
7	7 00	27	4 00	47	3 25	68	10 00	88	3 00	108	1 75	1 1-4 "	6 00
8	9 00	28	3 00	48	3 50	69	7 50	89	9 50	109	2 50	1 1-2 "	7 00
9	4 50	29	3 00	49	3 00	70	8 00	90	5 50	110	6 50	1 3-4 "	8 00
10	5 50	30	2 50	51	4 25	71	4 50	91	5 50	111	6 50	2 "	9 00
11	7 50	31	9 50	52	4 00	72	4 50	92	6 50	112	3 00	2 1-2 "	9 50
12	7 00	32	9 50	53	4 00	73	4 00	93	8 50	113	4 50	3 "	10 00
*13	*6 50	33	9 50	54	3 00	74	7 50	94	4 00	114	8 00		
14	6 00	34	9 50	55	2 00	75	5 50	95	3 00	115	3 00		
15	8 00	35	8 50	56	2 50	76	4 00	96	3 25	116	9 00		
16	3 25	36	10 00	57	9 50	77	4 00	97	3 00	117	5 50		
17	3 25	37	10 00	58	5 25	78	3 50	98	3 00	118	9 00		
18	3 25	38	10 00	59	9 50	79	6 50	99	4 00	119	8 50		
19	4 00	39	10 00	60	4 50	80	9 00	100	5 50	120	2 25		
20	3 25	40	10 00	61	11 00	81	4 50	101	2 00				

*13.—Two wings, 1 1-4 inch face, $5.00 *13.—Two wings, 2 inch face, $6.50.

NOTE.—The above prices are for Three-Wing Cutters. A reduction of 20 per cent. is made on all Cutters having Two Wings only.

RULES FOR CALCULATING THE SPEED OF DRUMS OR PULLEYS.

PROBLEM I.

The diameter of the driven being given, to find its number of revolutions.

RULE: Multiply the diameter of the driver by its number of revolutions, and divide the product by the diameter of the driven; the quotient will be the number of revolutions of the driven.

PROBLEM II.

The diameter and revolutions of the driver being given, to find the diameter of the driven, that shall make any given number of revolutions in the same time:

RULE: Multiply the diameter of the driver by its number of revolutions, and divide the product by the number of revolutions of the driven; the quotient will be its diameter.

PROBLEM III.

To ascertain the size of the driver:

RULE: Multiply the diameter of the driven by the number of revolutions you wish to make, and divide the product by the revolutions of the driver; the quotient will be the size of the driver.

ROWLEY & HERMANCE
WOOD WORKING MACHINERY
OFFICE